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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, March 9, 2020  
WELL WORK PERMIT  
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for MCDONALD 1211 S-8H  
47-041-05705-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin  
Chief

Operator's Well Number: MCDONALD 1211 S-8H  
Farm Name: HG ENERGY II APPALACHIA  
U.S. WELL NUMBER: 47-041-05705-00-00  
Horizontal 6A New Drill  
Date Issued: 3/9/2020

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

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## CONDITIONS

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1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: \_\_\_\_\_

## PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. McDonald 1211 S-8H  
Well Pad Name: McDonald 1211

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator: HG Energy II Appalachia, L.P. 494519932 Lewis Freeman West Milford 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: McDonald 1211 S-8H Well Pad Name: McDonald 1211

3) Farm Name/Surface Owner: McDonald Public Road Access: SR 19

4) Elevation, current ground: 1280' Elevation, proposed post-construction: 1264.5'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus at 6753'/6835' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6800'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19,525'

11) Proposed Horizontal Leg Length: 12,152'

12) Approximate Fresh Water Strata Depths: 34', 107', 205', 229', 249'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-5128, 3938, 4929)

14) Approximate Saltwater Depths: 1299', 1675'

15) Approximate Coal Seam Depths: 810' to 815'

16) Approximate Depth to Possible Void (coal mine, karst, other): None

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes \_\_\_\_\_ No

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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Environmental Protection

*B.S. 9-23-19*

WW-6B  
(04/15)

API NO. 47- 4704105705

OPERATOR WELL NO. McDonald 1211 S-8H

Well Pad Name: McDonald 1211

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size (in)</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft. (lb/ft)</b>	<b>FOOTAGE: For Drilling (ft)</b>	<b>INTERVALS: Left in Well (ft)</b>	<b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>
Conductor	30"	New	LS	157.5	120'	120' /	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1000'	1000' /	CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2040'	2040' /	CTS
Intermediate 2	9 5/8"	NEW	J-55 BTC	40	2750'	2750' /	CTS
Production	5 1/2"	NEW	P-110 HP	23	19525'	19525' /	CTS
Tubing							
Liners							

<b>TYPE</b>	<b>Size (in)</b>	<b>Wellbore Diameter (in)</b>	<b>Wall Thickness (in)</b>	<b>Burst Pressure (psi)</b>	<b>Anticipated Max. Internal Pressure (psi)</b>	<b>Cement Type</b>	<b>Cement Yield (cu. ft./k)</b>
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.19, tail yield 1.94
Tubing							
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6800 feet. Drill horizontal leg to estimated 12,152' lateral length, 19,525' TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ECP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.75 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.31 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.  
Freshwater/Coal - centralized every 3 joints to surface.  
Intermediate 1 - Bow Spring on every joint, will also be running ACP for isolating storage zone  
Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface.  
Production - Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.5' long joint to the top of the curve.

24) Describe all cement additives associated with each cement type:

Conductor - N/A. Casing to be drilled in w/ Dual Rotary Rig  
Fresh Water/Coal - 15.6 ppg PNE-1 + 3% bwoc CaCl<sub>2</sub>, 40% Excess Yield = 1.20, CTS  
Intermediate 1 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub>, 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> zero% Excess, CTS  
Intermediate 2 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub>, 40% Excess, Tail: 15.9 ppg, PNE-1 + 2.5% bwoc CaCl<sub>2</sub>, zero% Excess, CTS  
Production - Lead: 14.5 ppg POZ-PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170, Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess, Lead Yield=1.19, Tail Yield=1.94, CTS

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.  
Fresh Water/Coal - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.  
Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate 2 - Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

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\*Note: Attach additional sheets as needed.

**McDonald 1211 Well Pad (N-1H, N-3H, N-5H, S-7H, S-8H, S-9H)**  
**Cement Additives**

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>65997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
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Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
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Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
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Tributyl phosphate	90 - 100	126-73-8																			
Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
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Sucrose	90 - 100	57-50-1																			
EC-1	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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Poz (Fly Ash)	Base	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
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R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
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S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
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1211 S-8H4704105705  
Marcellus Shale Horizontal  
Lewis County, WV

1211 S-8H SHL

14211848.47N 1789505.72E

Ground Elevation

1265.5'

1211 S-8H LP

14211193.61N 1788690.26E

Azm

160.539°

1211 S-8H BHL

14199740.3N 1792737.43E

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	30"	30" 157.5# LS	Conductor	0	120 ✓	AIR	N/A, Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness
	26"	20" 94# J-55	Fresh Water	0	205	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi
			Kittaning Coal	919	924					
			Fresh Water Protection	0	1000 ✓					
	17.5"	13-3/8" 68# J-55 BTC	Big Lime	1480	1545	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on every joint <i>*will also be running ACP for isolating storage zone*</i>	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi
			Injun / Gantz (Storage)	1545 / 1830	1650 / 1890					
			Intermediate 1	0	2040					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1940 / 2037	1965 / 2060	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3950 psi
			Gordon Stray / Gordon	2060 / 2130	2130 / 2220					
			5th Sand	2320	2360					
			Bayard Sand	2405	2420					
	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	3025	3041	AIR / 9.0ppg SOB M	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions
			Balltown	3250	3290					
			Benson	4340	4350					
	8.5" Curve		Rhinestreet	6107	6377	11.5ppg-12.5ppg SOB M		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.		
Cashaqua			6377	6477						
Middlesex			6477	6509						
West River			6509	6580						
Burkett			6580	6590						
Tully Limestone			6590	6698						
Hamilton			6698	6753						
8.5" Lateral	Marcellus		6753	6835	11.5ppg-12.5ppg SOB M	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.				
	TMD / TVD (Production)		19525	6800 ✓						
	Onondaga		6835							

LP @ 6800' TVD / 7373' MD

8.5" Hole - Cemented Long String  
5-1/2" 23# P-110 HP CDC HTQ

+/-12152' Lateral

TD @ +/-6800' TVD  
+/-19525' MD

X=centralizers




**PROPOSAL TO DRILL WITHIN DOMINION TRANSMISSION STORAGE FIELD**

FIELD/ZONES: DOMINION FINK/KENNEDY/LOST CREEK –GANTZ SAND

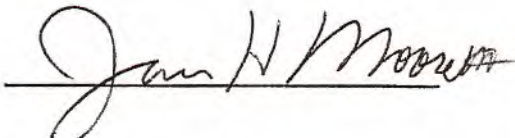
WELL NAME: McDonald 1211 S-8H

Well # 1211 S-8H

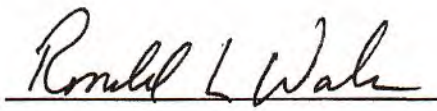
DISTRICT/COUNTY/STATE: Freemans Creek/Lewis/WV

Submitted   
JOSH HINTON  
HG ENERGY, LLC

DATE 1-10-20

Approved   
Dominion Energy Transmission

DATE 1-14-20

Approved   
Dominion Energy Transmission

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DATE 1-15-20

Comments:

HG Energy has submitted this Casing & Cementing diagram and Drilling Plan to Dominion Transmission for Review. This signed document acknowledges that Dominion has reviewed the proposed casing program and the well's location within the Fink/Kennedy/Lost Creek storage field. This acknowledgement also confirms the proposed casing program is accurate to the proper storage zone as provided by HG Energy, LLC

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator: HG Energy II Appalachia, L

<u>494519932</u>	<u>Lewis</u>	<u>Freeman</u>	<u>West Milford 7.5'</u>
------------------	--------------	----------------	--------------------------

Operator ID      County      District      Quadrangle

2) Operator's Well Number: McDonald 1211 S-8H Well Pad Name: McDonald 1211

3) Farm Name/Surface Owner: McDonald Public Road Access: SR 19

4) Elevation, current ground: 1280' Elevation, proposed post-construction: 1264.5'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus at 6753'/6835' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6800'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19,525'

11) Proposed Horizontal Leg Length: 12,152'

12) Approximate Fresh Water Strata Depths: 34', 107', 205', 229', 249'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-5128, 3938, 4929)

14) Approximate Saltwater Depths: 1299', 1675'

15) Approximate Coal Seam Depths: 810' to 815'

16) Approximate Depth to Possible Void (coal mine, karst, other): None

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes \_\_\_\_\_ No

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
 OPERATOR WELL NO. McDonald 1211 S-8H  
 Well Pad Name: McDonald 1211

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1000'	1000'	CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2040'	2040'	CTS
Intermediate 2	9 5/8"	NEW	J-55 BTC	40	2750'	2750'	CTS
Production	5 1/2"	NEW	P-110 HP	23	19525'	19525'	CTS
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% excess
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.18, tail yield 1.50
Tubing							
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6800 feet. Drill horizontal leg to estimated 12,152' lateral length, 19,525' TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ECP above the Gantz/Dominion Storage Interval to aid in sealing off and isolating the storage interval.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.75 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.31 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.  
Production Casing - Centralized every 3 joints to surface.  
Intermediate 1 - One Spring on every joint, will also be running ACP for loading storage zone  
Intermediate 2 - One Spring on first 3 joints then every third joint to 100' from surface.  
Production - Run 1 spiral centralizer every 3 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the last 5.5' long joint to the top of the curve.

24) Describe all cement additives associated with each cement type:

Conductor - N/A, Casing to be drilled to w/ Dual Rotary Rig.  
Fresh Water/Cas - 18.8 ppg PHE-1 + 2% brack CaCl<sub>2</sub>, 40% Excess Yield = 1.85, CTS  
Intermediate 1 - Lead: 18.4 ppg PHE-1 + 2.5% brack CaCl<sub>2</sub>, 40% Excess / Tail: 18.8 ppg PHE-1 + 2.5% brack CaCl<sub>2</sub>, 40% Excess, CTS  
Intermediate 2 - Lead: 18.4 ppg PHE-1 + 2.5% brack CaCl<sub>2</sub>, 40% Excess, Tail: 18.8 ppg PHE-1 + 2.5% brack CaCl<sub>2</sub>, 40% Excess, CTS  
Production - Lead: 14.8 ppg PHE-1 + 0.5% brack FD + 1% brack EDT + 0.2% galact FP-12L + 0.2% brack MPA170, Tail: 14.8 ppg PHE-1 + 0.5% brack FD + 0.75 galact FP-12L + 0.2% brack ASCA1 + 0.5% brack MPA170 25% Excess, Lead Yield=1.04, CTS

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.  
Fresh Water/Cas - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.  
Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate 2 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressure indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

\*Note: Attach additional sheets as needed.

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**1211 S-8H  
Marcellus Shale Horizontal  
Lewis County, WV**

Ground Elevation			1211 S-8H SHL				14211848.47N 1789505.72E						
Azim			1211 S-8H LP				14211193.61N 1788690.26E						
WELLBORE DIAGRAM			1211 S-8H BHL				14199740.3N 1792737.43E						
HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS				
	30"	30" 157.5# LS	Conductor	0	120	AIR	N/A, Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness			
	26"	20" 94# J-55	Fresh Water	0	205	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi			
			Kittaning Coal	919	924								
			Fresh Water Protection	0	1000								
	17.5"	13-3/8" 66# J-55 BTC	Big Lime	1480	1545	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on every joint <i>"will also be running ACP for isolating storage zone"</i>	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi			
			Injun / Gantz (Storage)	1545 / 1830	1650 / 1890								
			Intermediate 1	0	2040								
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1940 / 2037	1965 / 2060	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3950 psi			
			Gordon Stray / Gordon	2060 / 2130	2130 / 2220								
			5th Sand	2320	2360								
			Bayard Sand	2405	2420								
	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	3025	3041	AIR / 9.0ppg SOBMM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions			
			Balltown	3250	3290								
			Benson	4340	4350								
	8.5" Curve		Rhinesstreet	6107	6377	11.5ppg-12.5ppg SOBMM		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.					
Cashaqua			6377	6477									
Middlesex			6477	6509									
West River			6509	6580									
Burkett			6580	6590									
Tully Limestone			6590	6696									
8.5" Lateral	Hamilton		6696	6753	11.5ppg-12.5ppg SOBMM	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.							
	Marcellus		6753	6835									
	TMD / TVD (Production)		19525	6800									
			Onondaga	6835									

LP @ 6800' TVD / 7373' MD

8.5" Hole - Cemented Long String  
5-1/2" 23# P-110 HP CDC HTQ

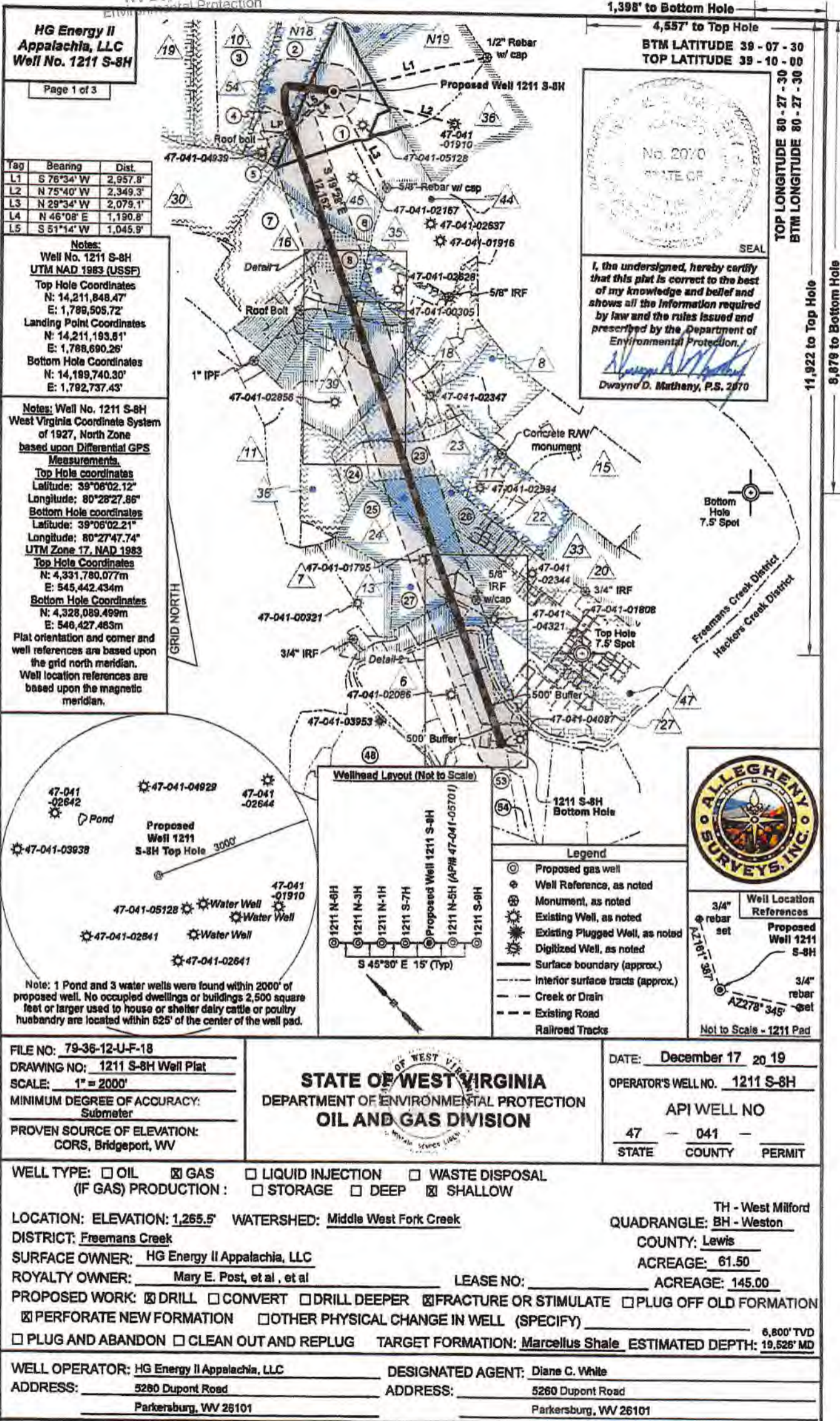
+/-12152' ft Lateral

TD @ +/-8800' TVD  
+/-19525' MD

X=centralizers

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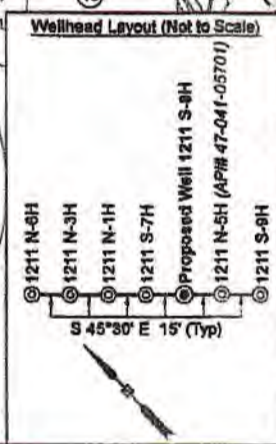
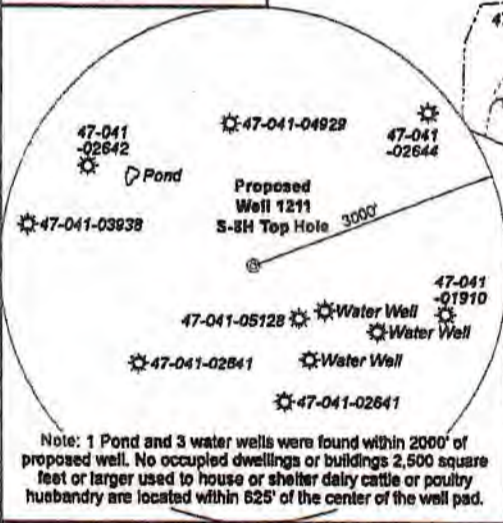
**HG Energy II  
Appalachia, LLC  
Well No. 1211 S-8H**

Page 1 of 3

Tag	Bearing	Dist.
L1	S 76°34' W	2,957.8'
L2	N 75°40' W	2,349.3'
L3	N 29°34' W	2,079.1'
L4	N 46°08' E	1,190.8'
L5	S 51°14' W	1,045.9'

**Notes:**  
Well No. 1211 S-8H  
UTM NAD 1983 (USSF)  
Top Hole Coordinates  
N: 14,211,848.47'  
E: 1,789,505.72'  
Landing Point Coordinates  
N: 14,211,193.81'  
E: 1,788,690.26'  
Bottom Hole Coordinates  
N: 14,199,740.30'  
E: 1,792,737.43'

**Notes:** Well No. 1211 S-8H  
West Virginia Coordinate System  
of 1927, North Zone  
based upon Differential GPS  
Measurements.  
Top Hole coordinates  
Latitude: 39°06'02.12"  
Longitude: 80°28'27.86"  
Bottom Hole coordinates  
Latitude: 39°06'02.21"  
Longitude: 80°27'47.74"  
UTM Zone 17, NAD 1983  
Top Hole Coordinates  
N: 4,331,780.077m  
E: 545,442.434m  
Bottom Hole Coordinates  
N: 4,328,089.499m  
E: 546,427.463m  
Plat orientation and corner  
and well references are based upon  
the grid north meridian.  
Well location references are  
based upon the magnetic  
meridian.



**Legend**

- Proposed gas well
- Well References, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- Creek or Drain
- Existing Road
- Railroad Tracks

**S ALLEGHENY SURVEYS, INC.**

Well Location References  
3/4" rebar set  
Proposed Well 1211 S-8H  
3/4" rebar set  
A2278° 345'

Not to Scale - 1211 Pad

FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO  
47 - 041 -  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek  
DISTRICT: Freemans Creek QUADRANGLE: BH - Weston  
SURFACE OWNER: HG Energy II Appalachia, LLC COUNTY: Lewis  
ROYALTY OWNER: Mary E. Post, et al, et al LEASE NO: ACREAGE: 61.50  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,526' MD 6,800' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

1,398' to Bottom Hole  
4,557' to Top Hole  
BTM LATITUDE 39 - 07 - 30  
TOP LATITUDE 39 - 10 - 00  
TOP LONGITUDE 80 - 27 - 30  
BTM LONGITUDE 80 - 27 - 30

11,922 to Top Hole  
8,078 to Bottom Hole

No. 2070  
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DWAYNE D. MATHENY, P.S. 2870

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

SEAL

**HG Energy II  
Appalachia, LLC  
Well No. 1211 S-8H**

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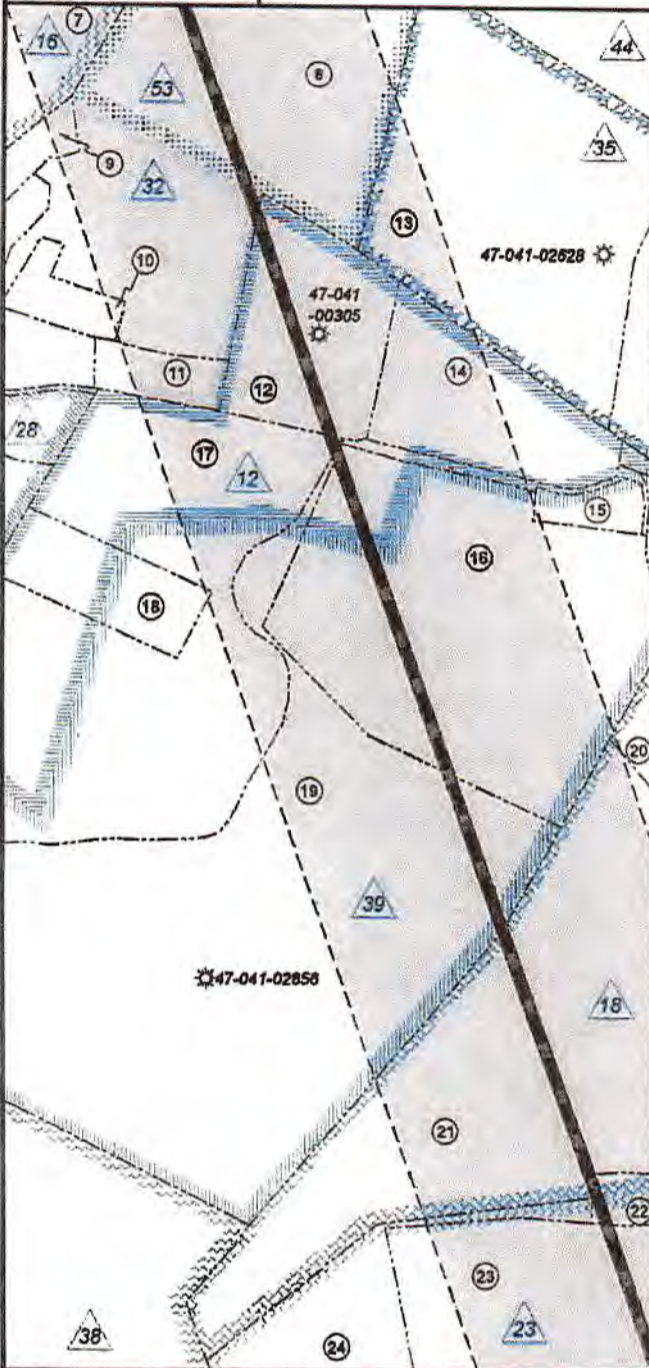
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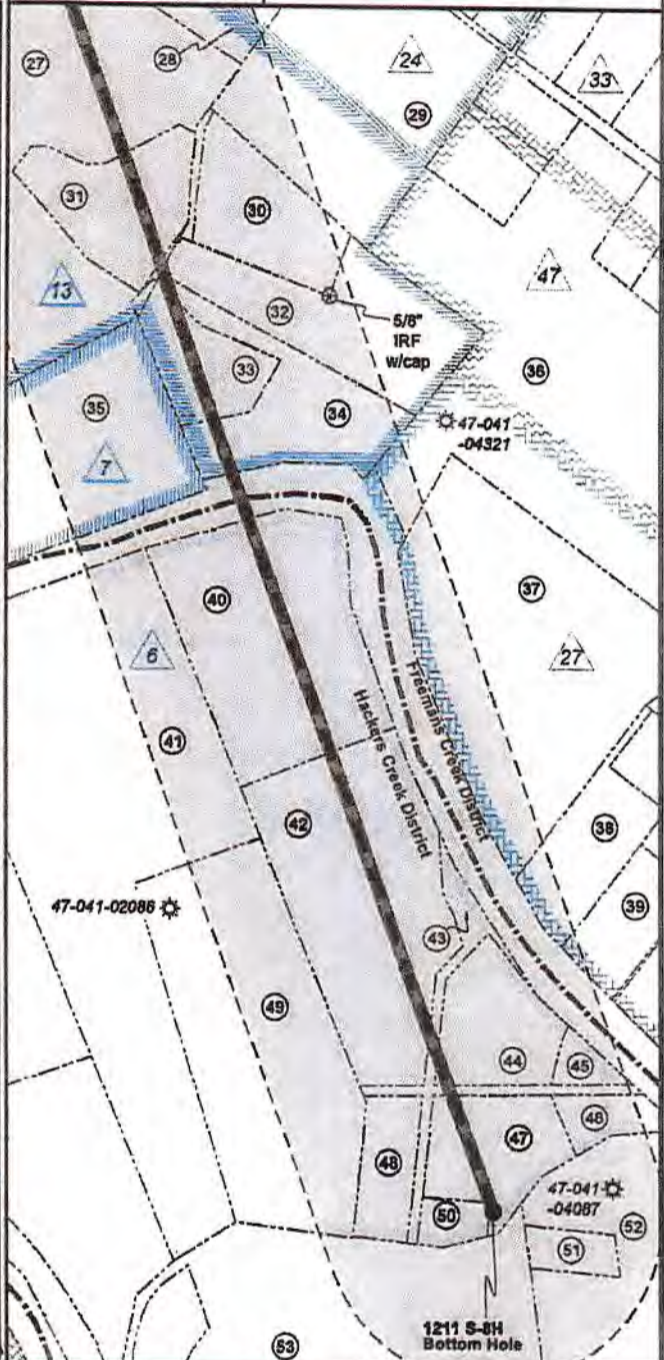
WV Department of  
Environmental Protection



Detail 1 - Scale: 1" = 500'



Detail 2 - Scale: 1" = 500'



FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

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API WELL NO  
47 - 041 -  
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

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DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Mary E. Post, et al, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 145.00

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 8,800' TVD  
19,528' MD

WELL OPERATOR: HG Energy II Appalachia, LLC  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

TH - West Milford  
QUADRANGLE: BH - Weston  
COUNTY: Lewis  
ACREAGE: 61.50

**HG Energy II  
Appalachia, LLC  
Well No. 1211 S-8H**



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No.	TM / Par	Owner	Bk / Pg	Ac.
1	7B / 10	HG Energy II Appalachia, LLC	730 / 677	61.50
2	7B / 9	Brincefield Family Trust	588 / 740	56.76
3	8B / 41	Brincefield Family Trust	588 / 740	71.62
4	7B / 9.2	Brincefield Family Trust	588 / 740	10.51
5	7B / 9.1	Frank McDonald	479 / 8	3.73
6	7B / 11	HG Energy II Appalachia LLC	730 / 677	54.50
7	6B / 47	Michael A. & Christine A. Cutlip	648 / 51	71.00
8	7C / 1	William B. & Teresa A. McCormick	605 / 385	22.76
9	7C / 1.2	Timothy J. & Tawney A. Wyatt	509 / 18	0.77
10	7C / 1.4	Joyce Lea Williams	638 / 86	1.11
11	7C / 2	Robert A. & Jane E. Horn	515 / 121	1.19
12	7C / 6	Beverly Ann Beam	453 / 353	5.66
13	7C / 32	Kelvin G. & Trent M. Williston	673 / 659	16.08
14	7C / 30.5	Timothy E. Beam	537 / 254	5.32
15	7C / 31	Francis C. Smith	488 / 375	0.75
16	7C / 30	John & Bette Gerath	429 / 689	19.16
17	7C / 6.3	Clinton C. & Gerilyn H. Beam	636 / 200	19.33
18	7C / 6.1	Clinton C. & Gerilyn H. Beam	556 / 174	3.00
19	7C / 6.2	Bette Gerath	412 / 593	36.15
20	7C / 30.8	Russell E. & Catherine F. Kerns	652 / 128	4.75
21	7C / 29	Betsy L. & Miquel A. Rodriguez	717 / 329	24.43
22	7C / 29.1	Daniel L. Truman	712 / 544	4.82
23	7C / 28.1	Charles D. & Linda Bailey	653 / 713	42.15
24	7C / 8	Bette Gerath	397 / 214	20.00
25	7C / 22	Fred Allen Bailey	452 / 268	35.35
26	7C / 25	Fred Allen Bailey	452 / 268	32.27
27	7C / 22.2	William B. Williams II	593 / 139	28.69
28	7C / 23	Fred Allen Bailey	452 / 268	6.02
29	7C / 51	Nathan King	720 / 789	9.75
30	7C / 21	Michael S. & Mary Beth Furby	593 / 248	3.00
31	7C / 22.1	Allen B. Jerden	301 / 77	3.35
32	7C / 20.1	Daniel R. & Glenna M. Johnston	726 / 830	3.00
33	7C / 20.2	Timothy P. & Glenda R. Weber	603 / 649	2.10
34	7C / 20	Edward W. Holden	726 / 826	5.20
35	7C / 19	Nina R. Chapman, et al	685 / 345	9.11
36	7C / 53.4	Jeremy & Jenny L. Garton	532 / 665	37.21
37	7C / 52.7	Jeremy & Jenny L. Garton	549 / 373	14.03
38	7C / 59	Jeremy & Jenny L. Garton	--- / ---	2.58
39	7C / 54	Joseph & Malissa Miller	--- / ---	1.91
40	7C / 12	James A. & Carol Trefz Smith	343 / 60	9.60
41	7D / 2	Donna M. & Aubrey E. Smith, Jr.	677 / 726	20.25
42	7D / 80	John & Phyllis Porterfield	427 / 687	10.00
43	7D / 81	John & Phyllis Porterfield	427 / 687	0.46
44	7D / 17	Tyrone D. & Amy B. Campbell	584 / 543	2.73
45	7D / 18	John & Phyllis Porterfield	427 / 691	0.58
46	7D / 21	Tyrone D. & Amy B. Campbell	597 / 615	0.67
47	7D / 19	John & Phyllis Porterfield	427 / 691	2.50
48	7D / 15	John & Phyllis Porterfield	427 / 691	1.57
49	7D / 16	Ricky W. & Kristine L. Frame	670 / 717	10.75
50	7D / 14	John & Phyllis Porterfield	427 / 691	0.47
51	7D / 20	James A. & Carol Trefz Smith	343 / 89	0.74
52	7D / 12	James A. & Carol Trefz Smith	343 / 60	28.66
53	7D / 13	Christine G. & Paul R. Myers	657 / 110	33.36
54	7D / 12.1	Randall D. & Leanna M. Louk	575 / 73	7.21

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ID	Lease
6	Mary E. Clark, et vr, et al
7	W.A. Chittum, et ux, et al
8	T.S. Allman, et al
10	J.L. Post, et al
11	W.D. Hilt, et al
12	G.C. Smith
13	Bertha H. Nay, et al
15	C.W. Smith, et al
16	P.C. Allman, et al
17	Maggie Cottrill
18	Cordelia Bailey
19	Henry L. Frashuer, et al
20	E.C. Strother, et al
22	C. Burke Morris, et al
23	C. Burke Morris, et al
24	A.B. College Inc.
27	E.R. Bennett, et al
28	M.G. Melihny, et al
29	J.L. Allman, et al
30	W.D. Allman, et al
32	J.L. Allman, et al
33	H.A. Fletcher, et al
35	Jesse Leeson, et al
36	George W. Nelly, et al
38	C. Burke Morris, et al
39	Cyrus W. Smith, et al
44	T.P. Barb, et al
45	Mary E. Post, et al
47	Minter E. Bailey
53	HG Energy II Appalachia, LLC
54	HG Energy II Appalachia, LLC
N18	Arthur Beeghley & et al
N19	James Beeghley, et al

FILE NO: 79-36-12-U-F-18  
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SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO  
47 - 041 -  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek  
DISTRICT: Freemans Creek

TH - West Milford  
QUADRANGLE: BH - Weston  
COUNTY: Lewis

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Mary E. Post, et al, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 145.00

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,800' TVD  
19,526' MID

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

Parkersburg, WV 26101



WW-9  
(4/16)

API Number 47 - 041 - 05705 H6A  
Operator's Well No. McDonald 1211 S-8H

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) Middle West Fork Creek Quadrangle West Milford 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.?

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number TBD - At next anticipated well )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop system, re-used or hauled to an approved disposal site or landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical - Air, Air/KCL, Air/SOBM, Horizontal - SOB

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Water, Soap, KCl, Barite, Base Oil, Wetting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? See Attached

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

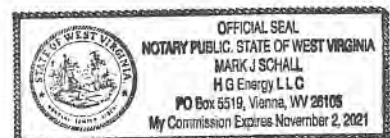
Company Official Signature Diane White RECEIVED Office of Oil and Gas

Company Official (Typed Name) Diane White FEB 03 2020

Company Official Title Agent WV Department of Environmental Protection

Subscribed and sworn before me this 23rd day of September, 20 19

[Signature] Notary Public  
My commission expires 11/2/2021



**HG Energy II Appalachia, LLC**

Proposed Revegetation Treatment: Acres Disturbed 22.75 Prevegetation pH \_\_\_\_\_

Lime \_\_\_\_\_ 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount \_\_\_\_\_ 500 lbs/acre

Mulch Hay \_\_\_\_\_ 2 Tons/acre

**Seed Mixtures**

<b>Temporary</b>		<b>Permanent</b>	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>Tall Fescue</u>	<u>40</u>	<u>Tall Fescue</u>	<u>40</u>
<u>Ladino Clover</u>	<u>5</u>	<u>Ladino Clover</u>	<u>5</u>

**Maintain E&S controls through the drilling and completion process**

**Attach:**

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bany Stillips

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.  
Upgrade E&S if needed per WV DEP E&S manual.

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WV Department of  
Environmental Protection

Title: Oil & Gas Inspector

Date: 9-23-19

Field Reviewed? ( ) Yes ( ) No

## Cuttings Disposal/Site Water

### Cuttings -Haul off Company:

Eap Industries, Inc. DOT # 0876278  
1875 Smith Two State Rd. Atlasburg, PA 15004  
1-888-294-5227

Waste Management  
200 Rangos Lane  
Washington, PA 15301  
724-222-3272

Environmental Coordination Services & Recycling (ECS&R)  
8237 US Highway 19  
Cochranston, PA 16314  
814-425-7778

### Disposal Locations:

Apex Environmental, LLC Permit # 06-08488  
11 County Road 78  
Amsterdam, OH 43908  
740-548-4889

Westmoreland Waste, LLC Permit # 100277  
111 Conner Lane  
Belle Vernon, PA 15012  
724-829-7694

Sycamore Landfill Inc, Permit #R80-079001 05-2010  
4301 Sycamore Ridge Road  
Hurricane, WV 25526  
304-862-2611

Max Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071  
233 Max Lane  
Yukon, PA 25968  
724-722-3500

Max Environmental Technologies, Inc. Facility Permit # PAD05087072 / 301359  
200 Max Drive  
Bulger, PA 15019  
724-796-1571

Waste Management Kelly Run Permit # 100663  
1901 Park Side Drive  
Elizabeth, PA 15037  
412-884-7569

Waste Management South Hills (Arnoni) Permit # 100592  
3100 Hill Road  
Library, PA 15129  
724-348-7013  
412-884-7569

Waste Management Arden Permit # 100172  
200 Rangos Lane  
Washington, PA 15301  
724-222-3272

Waste Management Meadowfill Permit # 1032  
1488 Dawson Drive  
Bridgeport, WV 26330

Brooke County Landfill Permit # SWR-103-97 / WV 0109029  
Rd 2 Box 410  
Colfers, WV 26035  
304-748-0014

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Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185  
Rt 1 Box 158A  
New Martinsville, WV 26035  
804-455-3800

Energy Solutions, LLC Permit # UT 2800249  
428 West 800 South  
Suite 200  
Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-78006-L24  
1560 Bear Creek Road  
Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814  
8947 US 131 North, PO Box 1030  
Kalkaska, MI 49646  
231-258-9961

**Water Haul off Companies:**

Dynamic Structures, Clear Creek DOT # 720485  
8790 State Route 7  
New Waterford, OH 44445  
880-892-0164

Nahors Completion & Production Services Co.  
PO Box 975682  
Dallas, TX 75397-5682

Select Energy Services, LLC  
PO Box 203997  
Dallas, TX 75320-3997

Nuvarra Environmental Solutions  
11942 Veterans Memorial Highway  
Masontown, WV 26542

Mustang Oilfield Services LLC  
PO Box 739  
St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC  
456 Cracraft Road  
Washington, PA 15301

**Disposal Locations:**

Solidification  
Waste Management, Arden Landfill Permit # 100172  
200 Rangos Lane  
Washington, PA 15301  
724-225-1589

Solidification/Incineration  
Soil Remediation, Inc. Permit # 02-20753  
6065 Arrel-Smith Road  
Lowelville, OH 44436  
880-586-6825

Adams #1 (Buckeye Brins, LLC)  
Permit # 34-031-2-7177  
23986 Airport Road  
Coshooton, OH 43812  
740-575-4484  
512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv  
301 Commerce Drive  
Moorestown, NJ 08057

Force, Inc.  
1380 Rte. 286 Hwy. E, Suite 303  
Indiana, PA 15701

Solo Construction  
P.O. Box 544  
St. Mary's, WV 26170

Equipment Transport  
1 Tyler Court  
Carlisle, PA 17015

Myers Well Service, .....  
2001 Ballpark Court  
Export, PA 15622

Burns Drilling & Excavating  
618 Crabapple Road P.O. Box  
Wind Ridge, PA 15880

Nichols 1-A (SWIW #18)  
Permit # 8862  
300 Cherrington Pkwy, Suite 200  
Coraopolis, PA 15108  
412-829-7275

Grosella (SWIW #34)  
Permit # 4096  
Rt. 88  
Garrettsville, OH  
719-275-4816

Kamble 1-D Well  
Permit # 8780  
7675 East Pike  
Norwich, Oh 43767  
614-648-8898  
740-786-6495

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Adams #2 (Buckeye Brine, LLC)  
2205 Westover Road  
Austin Tx 78708  
Permit # 34-031-2-7178  
740-575-4484  
612-478-6545

Adams #3 (Buckeye Brine, LLC)  
Permit #34-031-2-7241-00-00  
2680 Exposition, Suite 117  
Austin, TX 78703  
612-478-6545

Mozana #1 Well (SWIW # 13)  
Permit # 34-157-2-5511-00-00  
5367 E. State Street  
Newcomerstown, OH 43882  
740-763-3966

Goff SWD #1 (SWIW # 27)  
Permit # 34-119-2-8776-000  
300 Cherrington Pkwy, Suite 200  
Coraopolis, PA 15108  
412-829-7275

SCS D#1 (SWIW #12)  
Permit # 34-059-2-4202-00-00  
Silcor Oilfield Services, Inc.  
2999 Hubbard Road  
Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)  
Permit # 34-121-2-2459-00-00  
Select Energy Services, LLC  
7994 S. Pleasants Hwy  
St. Marys, WV 26170  
304-665-2652

OH UIC #1 Buckeye UIC Barnesville 1 & 2  
CNX Gas Company, LLC  
1000 Consol Energy Drive  
Permit # 34-013-2-0609-00-00  
Permit # 34-013-2-0614-00-00  
304-323-6568

US Steele 11385  
Permit # 47-001-00561  
200 Evergreen Drive  
Waynesburg, PA 15730  
304-323-6568

Chaplin #7 UIC (SWIW #7)  
Permit # 34-083-2-4137-00-00  
Elkhead Gas & Oil Company  
12163 Marne Rd. NE  
Newark, OH 43055  
740-763-3966

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# 1211 Pad Wellhead Layout

9/13/2019



1211 N-1H

1211 N-3H

1211 N-5H

1211 PAD

N-3H  
N-1H  
S-7H  
S-8H  
N-5H  
S-9H

Access Road

Detail

0 250

1" = 250'

1211 S-9H

1211 S-8H

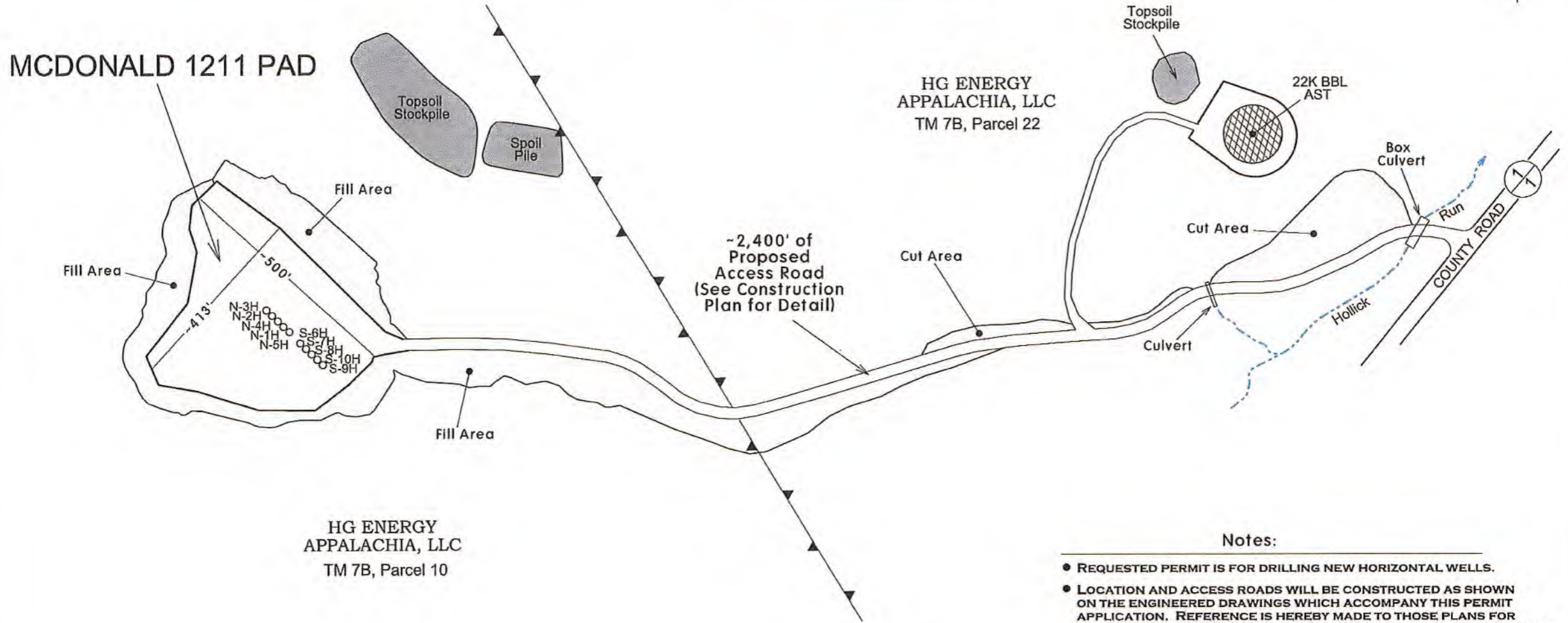
1211 S-7H

0 1000

1" = 1,000'

Reclamation Plan For:  
MCDONALD 1211 PAD

**NOTE**  
REFER TO THE WVDEP  
EROSION AND SEDIMENT CONTROL  
FIELD MANUAL VER. MAY 2012 FOR  
BMPs CONTROLLING EROSION AND  
SEDIMENT FROM SOIL-DISTURBING  
OPERATIONS.



HG ENERGY  
APPALACHIA, LLC  
TM 7B, Parcel 10

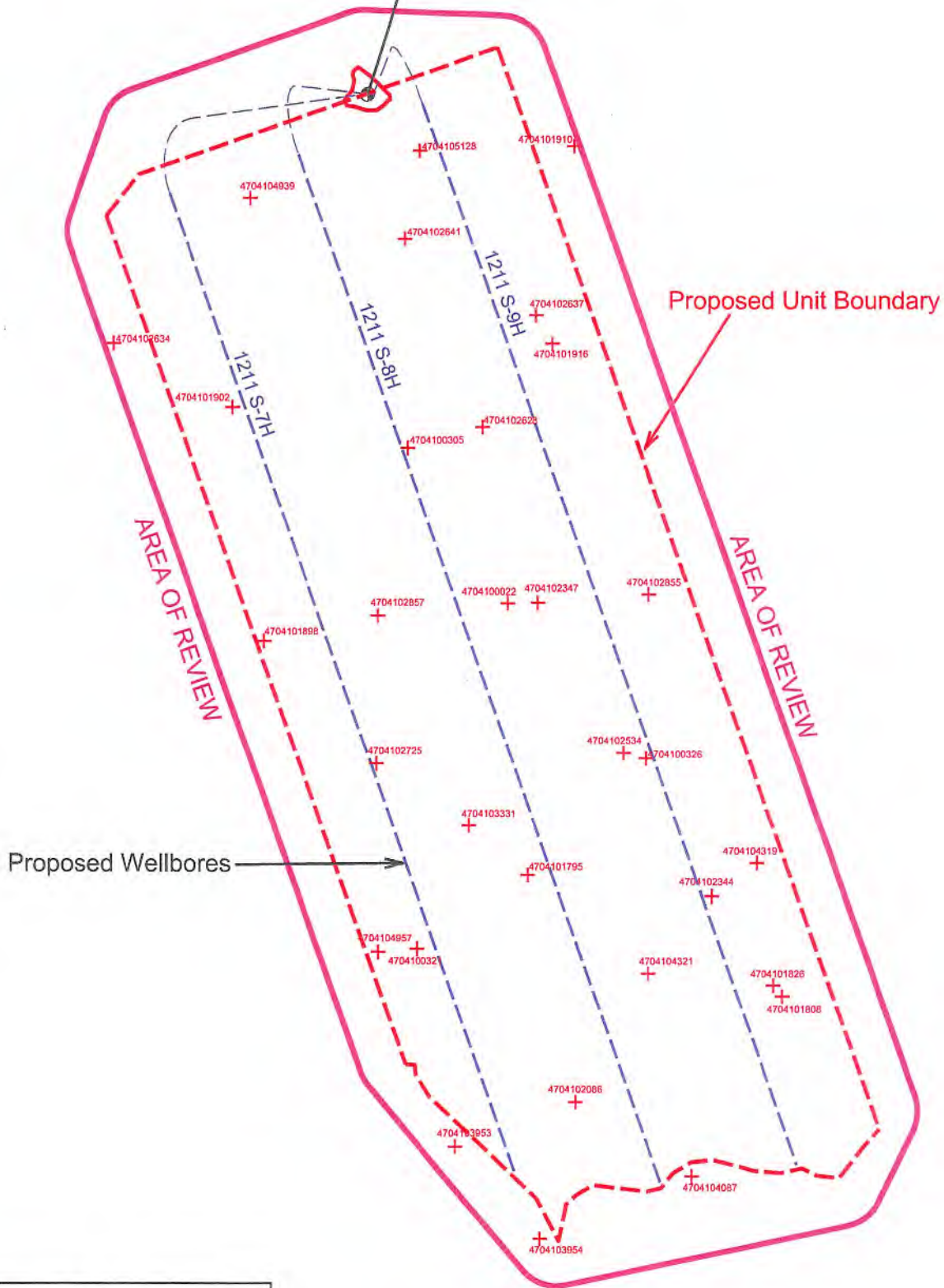
HG ENERGY  
APPALACHIA, LLC  
TM 7B, Parcel 22

**Notes:**

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELLS.
- LOCATION AND ACCESS ROADS WILL BE CONSTRUCTED AS SHOWN ON THE ENGINEERED DRAWINGS WHICH ACCOMPANY THIS PERMIT APPLICATION. REFERENCE IS HEREBY MADE TO THOSE PLANS FOR MORE DETAIL ON E&S MEASURES TO BE TAKEN TO ENSURE COMPLIANCE WITH WVDEP RECLAMATION STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- NO DRILL PIT WILL BE CONSTRUCTED AND A CLOSED LOOP SYSTEM WILL BE UTILIZED TO HANDLE DRILL CUTTINGS.
- DRAWING NOT TO SCALE.



McDONALD 1211 PAD



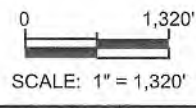
Well Key	
	Conventional Vertical Well
	Proposed Horizontal Marcellus Well

NOTE:  
 See Attached Spreadsheet for Well Data  
 DATA SOURCE  
 WVGES Data Set - 2017; WVDEP Website

Area of Review for:  
**McDONALD 1211 PAD**  
 Proposed 1211 S-7H Proposed 1211 S-8H  
 Proposed 1211 S-9H

HG ENERGY, II APPALACHIA, LLC  
 5260 DuPont Road, Parkersburg, WV 26101

Freeman's Creek District & Hacker's Creek District  
 Lewis County, W.Va.





**EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:  
McDONALD 1211 SOUTH UNIT AND PROPOSED WELLS S-7H, S-8H & S-9H**

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4704100022	Lewis	Lovett, N.	Dominion Energy Transmission, Inc.	Balltown	Gas	3062	ACTIVE	39.118421	-80.468945
2	4704100305	Lewis	E C Fletcher	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	3134	ACTIVE	39.123199	-80.472846
3	4704100321	Lewis	W A Chittum	Dominion Energy Transmission, Inc.	UNKNOWN	Observation		ACTIVE	39.107875	-80.472600
4	4704100326	Lewis	W F Garton	Hope Natural Gas Company	Hampshire Grp	Gas	2090	UNKNOWN	39.113636	-80.463546
5	4704101795	Lewis	Bertha H Nay	Dominion Energy Transmission, Inc.	Benson	Gas	4240	ACTIVE	39.110099	-80.468219
6	4704101808	Lewis	Frank/Lillie Swisher	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	2131	ACTIVE	39.106351	-80.458236
7	4704101826	Lewis	Minter E Bailey	Dominion Energy Transmission, Inc.	Benson	Gas	4165	UNKNOWN	39.106691	-80.458584
8	4704101898	Lewis	Kenneth Burrough	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4521	ACTIVE	39.117322	-80.478562
9	4704101902	Lewis	Marie Clevenger/R Clevenger	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4270	ACTIVE	39.124485	-80.479733
10	4704101910	Lewis	Leon S/E Lucille Rastle	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	3310	ACTIVE	39.132381	-80.466204
11	4704101916	Lewis	Kelvin G Williston	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4320	ACTIVE	39.126334	-80.467110
12	4704102086	Lewis	Olga M Smith 2	Alliance Petroleum Co. LLC	Benson	Gas	4241	ACTIVE	39.103155	-80.466389
13	4704102344	Lewis	H Fletcher	Charity Gas, Inc.	UNKNOWN	Gas	-	ABANDONED	39.109423	-80.460972
14	4704102347	Lewis	C Bailey	Dominion Energy Transmission, Inc.	UNKNOWN	Gas	-	ACTIVE	39.118435	-80.467751
15	4704102534	Lewis	C B Morris	Dominion Energy Transmission, Inc.	Benson	Gas	4225	ACTIVE	39.113809	-80.464422
16	4704102628	Lewis	Jesse Lesson	Dominion Energy Transmission, Inc.	UNKNOWN	STORAGE	-	ACTIVE	39.123812	-80.469890
17	4704102634	Lewis	T S Allman	Dominion Energy Transmission, Inc.	UNKNOWN	STORAGE	-	ACTIVE	39.126443	-80.484399
18	4704102637	Lewis	Mckinley & Barb	Dominion Energy Transmission, Inc.	UNKNOWN	STORAGE	-	ACTIVE	39.127211	-80.467745
19	4704102641	Lewis	Mary E Post	Dominion Energy Transmission, Inc.	UNKNOWN	STORAGE	-	ACTIVE	39.129572	-80.472914
20	4704102725	Lewis	John Gerath	Dominion Energy Transmission, Inc.	Balltown	Gas	3333	ACTIVE	39.113526	-80.474162
21	4704102855	Lewis	Allman Heirs	Dominion Energy Transmission, Inc.	UNKNOWN	Observation	-	ACTIVE	39.118657	-80.463391
22	4704102857	Lewis	C W Smith	Dominion Energy Transmission, Inc.	Fifth	Gas	2238	ABANDONED	39.118077	-80.474068
23	4704103331	Lewis	C F Bailey	Dominion Energy Transmission, Inc.	Gantz	Storage	2154	PLUGGED	39.111615	-80.470527
24	4704103953	Lewis	WVU - 4H Camp	Enervest Operating, LLC	Benson	Gas	4183	PLUGGED	39.101820	-80.471144
25	4704103954	Lewis	WVU - 4H Camp	Enervest Operating, LLC	Benson	Gas	4200	PLUGGED	39.098989	-80.467825
26	4704104087	Lewis	James Alonzo/C T Smith	Enervest Operating, LLC	Greenland Gap Fm	Gas	4169	ACTIVE	39.100885	-80.461831
27	4704104319	Lewis	M A Jerden/J V Garton 1	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4365	ACTIVE	39.110428	-80.459202
28	4704104321	Lewis	Jeremy/Jenny Garton 1	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4310	ACTIVE	39.107064	-80.463507
29	4704104939	Lewis	Robert/Terry Brincefield	Dominion Energy Transmission, Inc.	Misc Sands-BNSN/BRLR	Gas	4658	ACTIVE	39.130854	-80.478987
30	4704104957	Lewis	Hayward Allman	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	4355	ACTIVE	39.107786	-80.474138
31	4704105128	Lewis	Michael McDonald	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4320	ACTIVE	39.132274	-80.472291
32										

YELLOW DENOTES WELL WITH TVD > 4,500'

GREEN DENOTES SURVEYED WELLS

SOURCE: WVGES DATASET (2017) and WVDEP WEBSITE AND FIELD SURVEYS

WV Department of  
Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 17, 2020

Hope Natural Gas Company  
Bank One Center, W Third Street  
Clarksburg, WV 26301

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, is developing a Marcellus pad (McDonald 1211 pad) located in Lewis County, WV. As an owner or operator of a conventional natural gas well in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6800' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the McDonald 1211 Pad during the fourth quarter of 2020. We have identified conventional natural gas wells operated by your company within 500' of one of the newly planned laterals. A plat for the well is attached.

We recommend conventional well operators conduct the following activities before, during and after the fracturing operation.

1. Inspect surface equipment prior to fracturing to establish integrity and well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

Should you have any questions or desire further information, please contact me at 304-420-1119 or [dwhite@hgenergyllc.com](mailto:dwhite@hgenergyllc.com). You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

*Diane White*

Diane White

Enclosure

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Office of Oil and Gas

FEB 03 2020

WV Department of  
Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 17, 2020

Enervest Operating Company  
300 Capitol Street  
Charleston, WV 25301

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Sincerely,

*Diane White*

Diane White

Enclosure

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Office of Oil and Gas

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WV Department of  
Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

---

January 17, 2020

Dominion Energy Transmission  
Attn: Charles Cunningham  
2397 Davisson Run Road  
Clarksburg, WV 26301

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Sincerely,

*Diane White*

Diane White

Enclosure

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Office of Oil and Gas

FEB 03 2020

WV Department of  
Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 17, 2020

CONSOL Gas Company  
1000 CONSOL Energy Drive  
Cannonsburg, PA 16317

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, is developing a Marcellus pad (McDonald 1211 pad) located in Lewis County, WV. As an owner or operator of a conventional natural gas well in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6800' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the McDonald 1211 Pad during the fourth quarter of 2020. We have identified conventional natural gas wells operated by your company within 500' of one of the newly planned laterals. A plat for the well is attached.

We recommend conventional well operators conduct the following activities before, during and after the fracturing operation.

1. Inspect surface equipment prior to fracturing to establish integrity and well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

Should you have any questions or desire further information, please contact me at 304-420-1119 or [dwhite@hgenergyllc.com](mailto:dwhite@hgenergyllc.com). You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

*Diane White*

Diane White

Enclosure

RECEIVED  
Office of Oil and Gas

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Environmental Protection



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5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
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---

January 17, 2020

Waco Oil and Gas Company  
1595 US Highway 33 E  
Glennville, WV 26351

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
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January 17, 2020

Clowser Well Service, Inc.  
805 Charlie Brown Road  
Salem, WV 26426

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
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5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
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January 17, 2020

Greylock Conventional, LLC.  
500 Corporate Landing  
Charleston, WV 25304

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
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5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 17, 2020

Alliance Petroleum Company  
101 McQuiston Drive  
Jackson Center, PA 16133

RE: Area of Review – McDonald 1211 Well Pad (N-1H to N-5H, S-7H – S9H)  
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Diane White

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FEB 03 2020

WV Department of  
Environmental Protection

# HG Energy II Appalachia, LLC

## Site Safety Plan

McDonald 1211 Well Pad  
636 Hollick Run Rd Jane Lew  
Lewis County, WV 26378

August 2019: Version 1

For Submission to  
West Virginia Department of Environmental Protection,  
Office of Oil and Gas

HG Energy II Appalachia, LLC

5260 Dupont Road

Parkersburg, WV 26101

RECEIVED  
Office of Oil and Gas

AUG 16 2019

WV Department of  
Environmental Protection

RECEIVED  
Office of Oil and Gas

FEB 03 2020

WV Department of  
Environmental Protection

*Darryl Shoop 8-12-19*

SUBJECT WELL  
McDonald 1211 S-8H



◆ Denotes Possible Water Supply Source to be Tested

Section of  
West Milford 7.5' Quadrangle  
SCALE 1"=1000'

**HG Energy II  
Appalachia, LLC  
Well No. 1211 S-8H**

Page 1 of 3

Tag	Bearing	Dist.
L1	S 76°34' W	2,957.8'
L2	N 75°40' W	2,349.3'
L3	N 29°34' W	2,079.1'
L4	N 46°08' E	1,190.8'
L5	S 51°14' W	1,045.9'

**Notes:**

Well No. 1211 S-8H  
UTM NAD 1983 (USSF)  
Top Hole Coordinates  
N: 14,211,848.47'  
E: 1,789,505.72'  
Landing Point Coordinates  
N: 14,211,193.61'  
E: 1,788,690.26'  
Bottom Hole Coordinates  
N: 14,199,740.30'  
E: 1,792,737.43'

Notes: Well No. 1211 S-8H  
West Virginia Coordinate System  
of 1927, North Zone  
based upon Differential GPS  
Measurements.

Top Hole coordinates  
Latitude: 39°08'02.12"  
Longitude: 80°28'27.86"  
Bottom Hole coordinates  
Latitude: 39°06'02.21"  
Longitude: 80°27'47.74"  
UTM Zone 17, NAD 1983  
Top Hole Coordinates  
N: 4,331,780.077m  
E: 545,442.434m  
Bottom Hole Coordinates  
N: 4,328,089.499m  
E: 546,427.463m  
Plat orientation and corner and  
well references are based upon  
the grid north meridian.  
Well location references are  
based upon the magnetic  
meridian.

1,398' to Bottom Hole

4,557' to Top Hole

BTM LATITUDE 39 - 07 - 30  
TOP LATITUDE 39 - 10 - 00

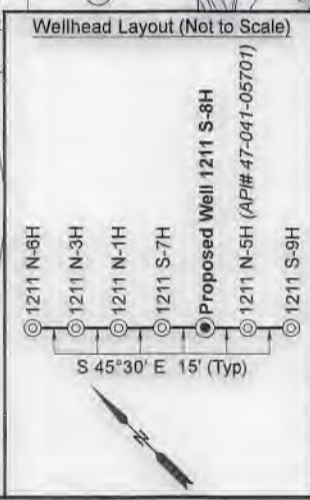
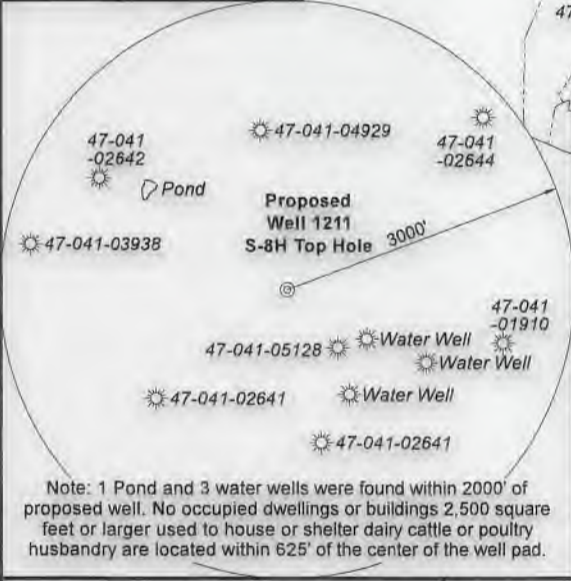
TOP LONGITUDE 80 - 27 - 30  
BTM LONGITUDE 80 - 27 - 30

11,922' to Top Hole  
8,879' to Bottom Hole



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Dwayne D. Matheny*  
Dwayne D. Matheny, P.S. 2070



**Legend**

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- Creek or Drain
- Existing Road
- Railroad Tracks

**Well Location References**

3/4" rebar set

Proposed Well 1211 S-8H

3/4" rebar set

AZ278° 345'

Not to Scale - 1211 Pad

FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO **H4A**  
47 - 041 - **05705**  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek  
DISTRICT: Freemans Creek QUADRANGLE: BH - Weston  
SURFACE OWNER: HG Energy II Appalachia, LLC COUNTY: Lewis  
ROYALTY OWNER: Mary E. Post, et al , et al LEASE NO: ACREAGE: 61.50  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,526' MD

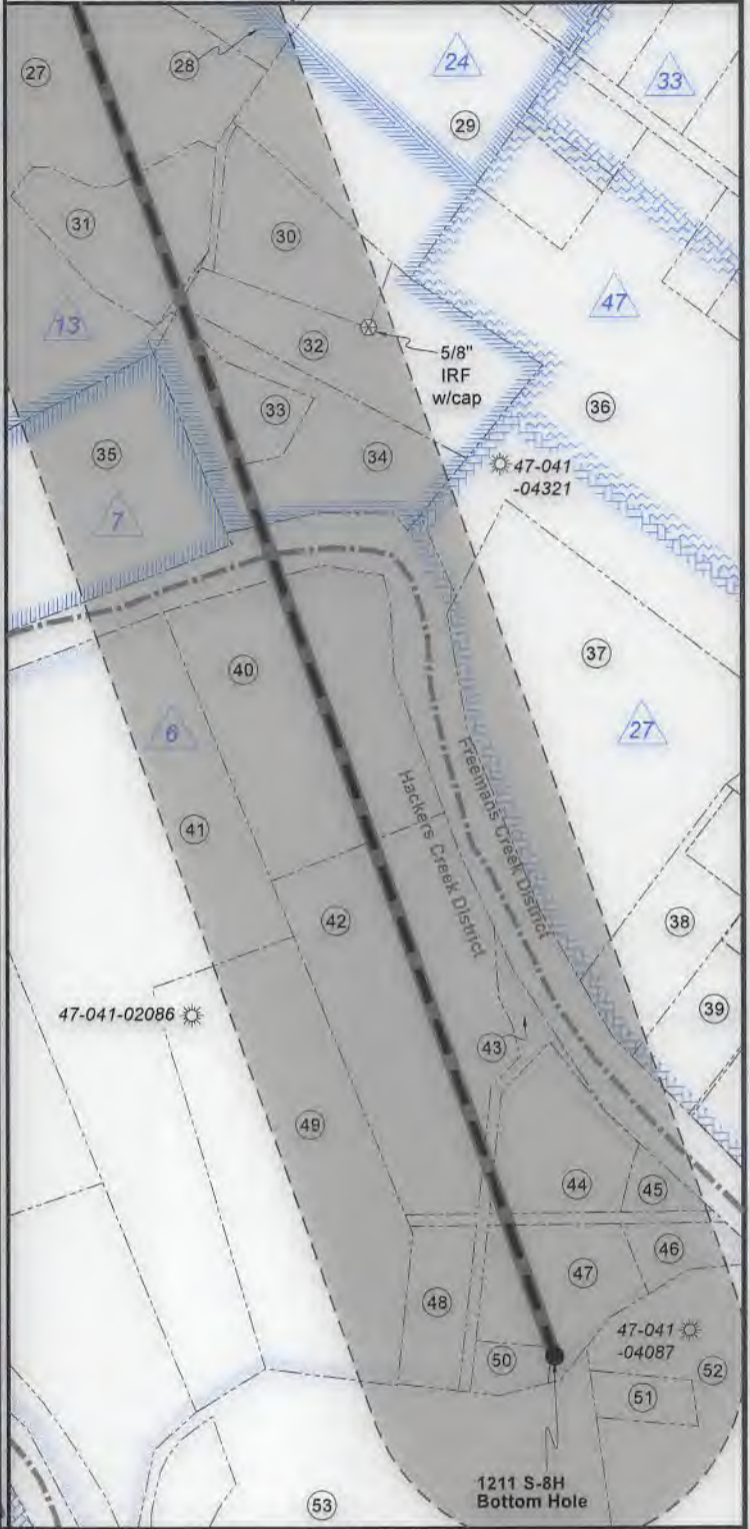
WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101



Detail 1 - Scale: 1" = 500'



Detail 2 - Scale: 1" = 500'



FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO 47-041-05765  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek  
DISTRICT: Freemans Creek

TH - West Milford  
QUADRANGLE: BH - Weston  
COUNTY: Lewis  
ACREAGE: 61.50

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Mary E. Post, et al, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 145.00

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,526' MD 6,800' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
1	7B / 10	HG Energy II Appalachia, LLC	730 / 677	61.50
2	7B / 9	Brincefield Family Trust	588 / 740	56.76
3	6B / 41	Brincefield Family Trust	588 / 740	71.62
4	7B / 9.2	Brincefield Family Trust	588 / 740	10.51
5	7B / 9.1	Frank McDonald	479 / 8	3.73
6	7B / 11	HG Energy II Appalachia LLC	730 / 677	54.50
7	6B / 47	Michael A. & Christine A. Cutlip	648 / 51	71.00
8	7C / 1	William B. & Teresa A. McCormick	605 / 385	22.76
9	7C / 1.2	Timothy J. & Tawney A. Wyatt	509 / 18	0.77
10	7C / 1.4	Joyce Lea Williams	638 / 86	1.11
11	7C / 2	Robert A. & Jane E. Horn	515 / 121	1.19
12	7C / 6	Beverly Ann Beam	453 / 353	5.66
13	7C / 32	Kelvin G. & Trent M. Williston	673 / 669	16.08
14	7C / 30.5	Timothy E. Beam	537 / 254	5.32
15	7C / 31	Francis C. Smith	488 / 376	0.75
16	7C / 30	John & Bette Gerath	429 / 689	19.16
17	7C / 6.3	Clinton C. & Geryln H. Beam	636 / 200	19.33
18	7C / 6.1	Clinton C. & Geryln H. Beam	556 / 174	3.00
19	7C / 6.2	Bette Garath	412 / 593	36.15
20	7C / 30.8	Russell E. & Catherine F. Kerns	652 / 128	4.75
21	7C / 29	Betsy L. & Miquel A. Rodriguez	717 / 329	24.43
22	7C / 29.1	Daniel L. Truman	712 / 544	4.82
23	7C / 26.1	Charles D. & Linda Bailey	653 / 713	42.15
24	7C / 8	Bette Garath	397 / 214	20.00
25	7C / 22	Fred Allen Bailey	452 / 268	35.35
26	7C / 25	Fred Allen Bailey	452 / 268	32.27
27	7C / 22.2	William B. Williams II	593 / 139	28.69
28	7C / 23	Fred Allen Bailey	452 / 268	6.02
29	7C / 51	Nathan King	720 / 789	9.75
30	7C / 21	Michael S. & Mary Beth Furby	593 / 248	3.00
31	7C / 22.1	Allen B. Jerden	301 / 77	3.35
32	7C / 20.1	Daniel R. & Glenna M. Johnston	726 / 830	3.00
33	7C / 20.2	Timothy P. & Glenda R. Weber	603 / 649	2.10
34	7C / 20	Edward W. Holden	726 / 826	5.20
35	7C / 19	Nina R. Chapman, et al	665 / 345	9.11
36	7C / 53.4	Jeremy & Jenny L. Garton	532 / 665	37.21
37	7C / 52.7	Jeremy & Jenny L. Garton	549 / 373	14.03
38	7C / 59	Jeremy & Jenny L. Garton	--- / ---	2.58
39	7C / 54	Joseph & Malissa Miller	--- / ---	1.91
40	7C / 2	James A. & Carol Trefz Smith	343 / 60	9.60
41	7D / 2	Donna M. & Aubrey E. Smith, Jr.	677 / 726	20.25
42	7D / 60	John & Phylis Porterfield	427 / 687	10.00
43	7D / 61	John & Phylis Porterfield	427 / 687	0.46
44	7D / 17	Tyrone D. & Amy B. Campbell	584 / 543	2.73
45	7D / 18	John & Phylis Porterfield	427 / 691	0.58
46	7D / 21	Tyrone D. & Amy B. Campbell	597 / 615	0.67
47	7D / 19	John & Phylis Porterfield	427 / 691	2.50
48	7D / 15	John & Phylis Porterfield	427 / 691	1.57
49	7D / 16	Ricky W. & Kristine L. Frame	670 / 717	10.75
50	7D / 14	John & Phylis Porterfield	427 / 691	0.47
51	7D / 20	James A. & Carol Trefz Smith	343 / 89	0.74
52	7D / 12	James A. & Carol Trefz Smith	343 / 60	28.68
53	7D / 13	Christine G. & Paul R. Myers	657 / 110	33.36
54	7D / 12.1	Randall D. & Leanna M. Louk	575 / 73	7.21

ID	Lease
6	Mary E. Clark, et vir, et al
7	W.A. Chittum, et ux, et al
8	T.S. Allman, et al
10	J.L. Post, et al
11	W.D. Hitt, et al
12	G.C. Smith
13	Bertha H. Nay, et al
15	C.W. Smith, et al
16	P.C. Allman, et al
17	Maggie Coltrill
18	Cordelia Bailey
19	Henry L. Frashuer, et al
20	E.C. Strother, et al
22	C. Burke Morris, et al
23	C. Burke Morris, et al
24	A.B. College Inc.
27	E.R. Bennett, et al
28	M.G. Metheny, et al
29	J.L. Allman, et al
30	W.D. Allman, et al
32	J.L. Allman, et al
33	H.A. Fletcher, et al
35	Jesse Leason, et al
36	George W. Nelly, et al
38	C. Burke Morris, et al
39	Cyrus W. Smith, et al
44	T.P. Barb, et al
45	Mary E. Post, et al
47	Minter E. Bailey
53	HG Energy II Appalachia, LLC
54	HG Energy II Appalachia, LLC
N18	Arthur Beeghley & et al
N19	James Beeghley, et al

FILE NO: 79-36-12-U-F-18  
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 CORS, Bridgeport, WV



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 API WELL NO **H44**  
 47 - 041 - **05705**  
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 QUADRANGLE: BH - Weston  
 COUNTY: Lewis  
 ACREAGE: 61.50

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DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road  
 Parkersburg, WV 26101

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**HG Energy II  
Appalachia, LLC  
Well No. 1211 S-8H**

Page 1 of 3

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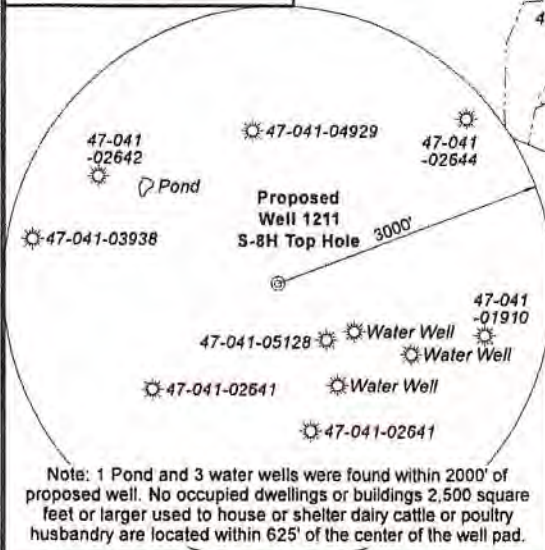
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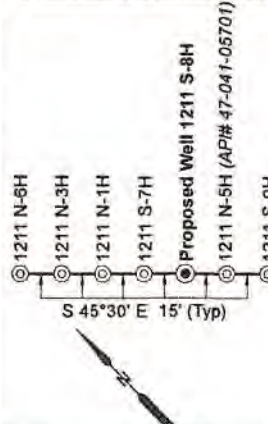
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Well location references are based upon the magnetic meridian.



Wellhead Layout (Not to Scale)



- Legend**
- Proposed gas well
  - Well Reference, as noted
  - Monument, as noted
  - Existing Well, as noted
  - Existing Plugged Well, as noted
  - Digitized Well, as noted
  - Surface boundary (approx.)
  - Interior surface tracts (approx.)
  - Creek or Drain
  - Existing Road
  - Railroad Tracks



Well Location References

3/4" rebar set

Proposed Well 1211 S-8H

3/4" rebar set

AZ278° 345'

Not to Scale - 1211 Pad

1,398' to Bottom Hole

4,557' to Top Hole

BTM LATITUDE 39 - 07 - 30  
TOP LATITUDE 39 - 10 - 00

TOP LONGITUDE 80 - 27 - 30  
BTM LONGITUDE 80 - 27 - 30



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny, P.S. 2970

11,922 to Top Hole  
8,879 to Bottom Hole

FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO 47-041-05705  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Mary E. Post, et al, et al

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,800' TVD 19,528' MD

WELL OPERATOR: HG Energy II Appalachia, LLC  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

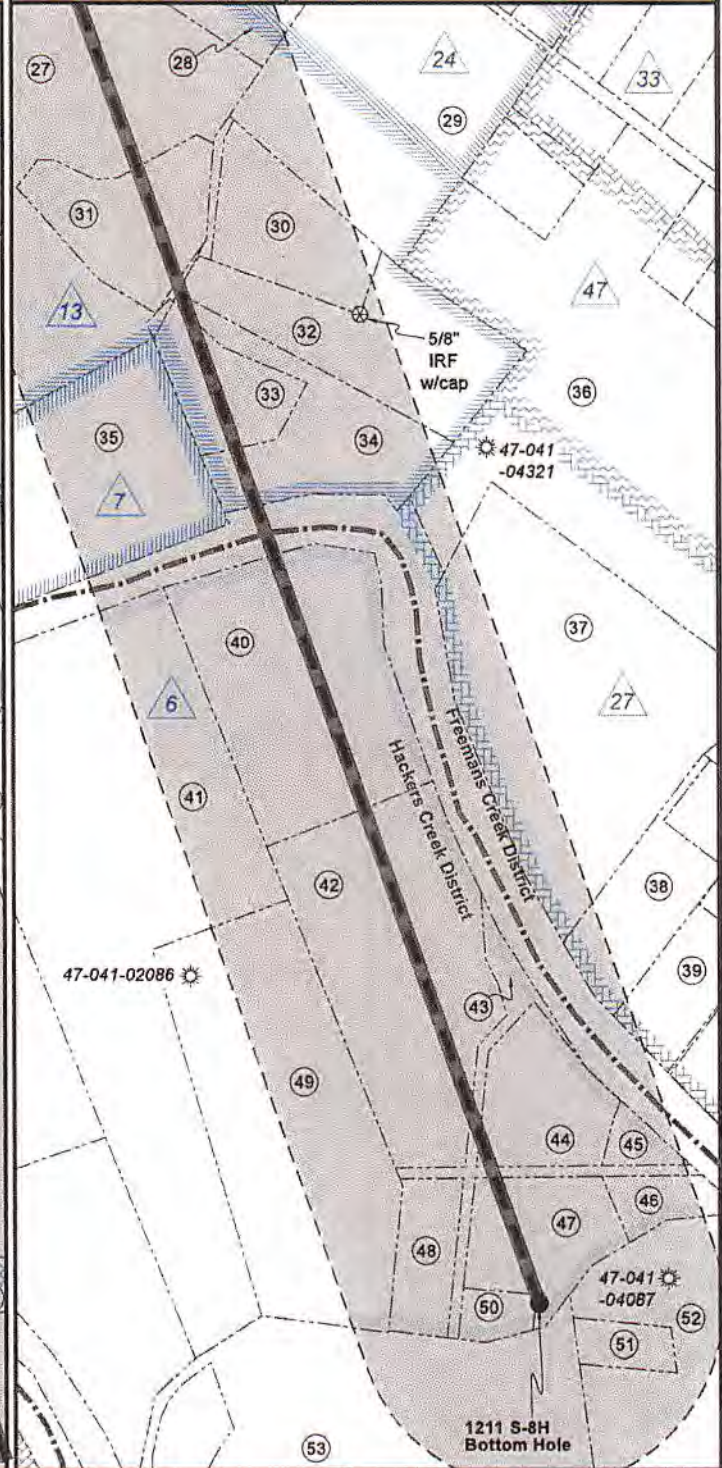
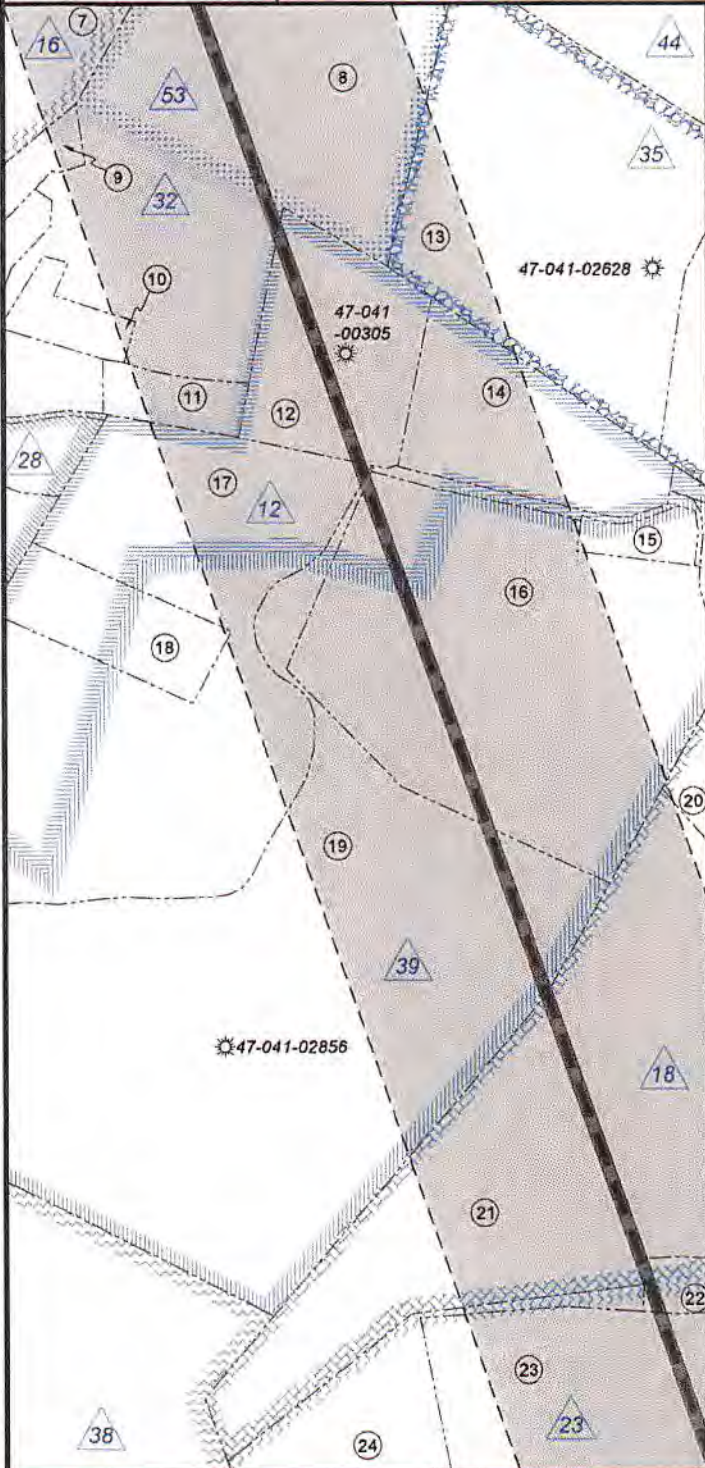
TH - West Milford  
QUADRANGLE: BH - Weston  
COUNTY: Lewis  
ACREAGE: 61.50

LEASE NO: ACREAGE: 145.00



Detail 1 - Scale: 1" = 500'

Detail 2 - Scale: 1" = 500'



FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO. ~~1211~~ **4705**  
47 - 041 - **05705**  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek  
DISTRICT: Freemans Creek

TH - West Milford  
QUADRANGLE: BH - Weston  
COUNTY: Lewis  
ACREAGE: 61.50

SURFACE OWNER: HG Energy II Appalachia, LLC  
ROYALTY OWNER: Mary E. Post, et al, et al

LEASE NO: \_\_\_\_\_ ACREAGE: 145.00

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,526' MD 6,800' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101





No.	TM / Par	Owner	Bk / Pg	Ac.
1	7B / 10	HG Energy II Appalachia, LLC	730 / 677	61.50
2	7B / 9	Brincefield Family Trust	588 / 740	56.76
3	6B / 41	Brincefield Family Trust	588 / 740	71.62
4	7B / 9.2	Brincefield Family Trust	588 / 740	10.51
5	7B / 9.1	Frank McDonald	479 / 8	3.73
6	7B / 11	HG Energy II Appalachia LLC	730 / 677	54.50
7	6B / 47	Michael A. & Christine A. Cullip	648 / 51	71.00
8	7C / 1	William B. & Teresa A. McCormick	605 / 385	22.76
9	7C / 1.2	Timothy J. & Tawney A. Wyatt	509 / 18	0.77
10	7C / 1.4	Joyce Lea Williams	638 / 86	1.11
11	7C / 2	Robert A. & Jane E. Horn	515 / 121	1.19
12	7C / 6	Beverly Ann Beam	453 / 353	5.66
13	7C / 32	Kelvin G. & Trent M. Williston	673 / 669	16.08
14	7C / 30.5	Timothy E. Beam	537 / 254	5.32
15	7C / 31	Francis C. Smith	488 / 376	0.75
16	7C / 30	John & Bette Gerath	429 / 689	19.16
17	7C / 6.3	Clinton C. & Geryln H. Beam	636 / 200	19.33
18	7C / 6.1	Clinton C. & Geryln H. Beam	556 / 174	3.00
19	7C / 6.2	Bette Garath	412 / 593	36.15
20	7C / 30.8	Russell E. & Catherine F. Kerns	652 / 128	4.75
21	7C / 29	Betsy L. & Miquel A. Rodriguez	717 / 329	24.43
22	7C / 29.1	Daniel L. Truman	712 / 544	4.82
23	7C / 26.1	Charles D. & Linda Bailey	653 / 713	42.15
24	7C / 8	Bette Garath	397 / 214	20.00
25	7C / 22	Fred Allen Bailey	452 / 268	35.35
26	7C / 25	Fred Allen Bailey	452 / 268	32.27
27	7C / 22.2	William B. Williams II	593 / 139	28.69
28	7C / 23	Fred Allen Bailey	452 / 268	6.02
29	7C / 51	Nathan King	720 / 789	9.75
30	7C / 21	Michael S. & Mary Beth Furby	593 / 248	3.00
31	7C / 22.1	Allen B. Jerden	301 / 77	3.35
32	7C / 20.1	Daniel R. & Glenna M. Johnston	726 / 830	3.00
33	7C / 20.2	Timothy P. & Glenda R. Weber	603 / 649	2.10
34	7C / 20	Edward W. Holden	726 / 826	5.20
35	7C / 19	Nina R. Chapman, et al	665 / 345	9.11
36	7C / 53.4	Jeremy & Jenny L. Garton	532 / 665	37.21
37	7C / 52.7	Jeremy & Jenny L. Garton	549 / 373	14.03
38	7C / 59	Jeremy & Jenny L. Garton	--- / ---	2.58
39	7C / 54	Joseph & Malissa Miller	--- / ---	1.91
40	7C / 2	James A. & Carol Trefz Smith	343 / 60	9.60
41	7D / 2	Donna M. & Aubrey E. Smith, Jr.	677 / 726	20.25
42	7D / 60	John & Phylis Porterfield	427 / 687	10.00
43	7D / 61	John & Phylis Porterfield	427 / 687	0.46
44	7D / 17	Tyrone D. & Amy B. Campbell	584 / 543	2.73
45	7D / 18	John & Phylis Porterfield	427 / 691	0.58
46	7D / 21	Tyrone D. & Amy B. Campbell	597 / 615	0.67
47	7D / 19	John & Phylis Porterfield	427 / 691	2.50
48	7D / 15	John & Phylis Porterfield	427 / 691	1.57
49	7D / 16	Ricky W. & Kristine L. Frame	670 / 717	10.75
50	7D / 14	John & Phylis Porterfield	427 / 691	0.47
51	7D / 20	James A. & Carol Trefz Smith	343 / 89	0.74
52	7D / 12	James A. & Carol Trefz Smith	343 / 60	28.68
53	7D / 13	Christine G. & Paul R. Myers	657 / 110	33.36
54	7D / 12.1	Randall D. & Leanna M. Louk	575 / 73	7.21

ID	Lease
6	Mary E. Clark, et vir, et al
7	W.A. Chittum, et ux, et al
8	T.S. Allman, et al
10	J.L. Post, et al
11	W.D. Hitt, et al
12	G.C. Smith
13	Bertha H. Nay, et al
15	C.W. Smith, et al
16	P.C. Allman, et al
17	Maggie Cottrill
18	Cordelia Bailey
19	Henry L. Frashuer, et al
20	E.C. Strother, et al
22	C. Burke Morris, et al
23	C. Burke Morris, et al
24	A.B. College Inc.
27	E.R. Bennett, et al
28	M.G. Metheny, et al
29	J.L. Allman, et al
30	W.D. Allman, et al
32	J.L. Allman, et al
33	H.A. Fletcher, et al
35	Jesse Leeson, et al
36	George W. Nelly, et al
38	C. Burke Morris, et al
39	Cyrus W. Smith, et al
44	T.P. Barb, et al
45	Mary E. Post, et al
47	Minter E. Bailey
53	HG Energy II Appalachia, LLC
54	HG Energy II Appalachia, LLC
N18	Arthur Beeghly & et al
N19	James Beeghly, et al

FILE NO: 79-36-12-U-F-18  
DRAWING NO: 1211 S-8H Well Plat  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY:  
Submeter  
PROVEN SOURCE OF ELEVATION:  
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

DATE: December 17 20 19  
OPERATOR'S WELL NO. 1211 S-8H  
API WELL NO. H0A  
47 - 041 - 05705  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek TH - West Milford  
DISTRICT: Freemans Creek QUADRANGLE: BH - Weston  
SURFACE OWNER: HG Energy II Appalachia, LLC COUNTY: Lewis  
ROYALTY OWNER: Mary E. Post, et al, et al LEASE NO: ACREAGE: 145.00  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ 6,800' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,526' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White  
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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**\*\* See Attached Sheets \*\***

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: HG Energy II Appalachia, LLC  
 By: Diane White *Diane White*  
 Its: Agent

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Office of Oil and Gas

FEB 03 2020

McDonald 1211 S-8H LEASE CHAIN

TRACT #	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE				
45	FK053254	03-007B-0010-0000 03-007B-0011-0000 03-007B-0013-0000 p/o 03-007B-0010-0001	Q10048600	MARY E. POST; J. L. POST; F. L. POST AND B. J. POST, HIS WIFE; IDA B. GASTON AND CLARK GASTON, HER HUSBAND; G. W. POST AND FLAVA POST, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	291				
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION TRANSMISSION, INC.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	620	139				
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	651	137				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139				
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527				
				54	FK052962	03-007B-0009-0000 03-007B-0009-0001 03-007B-0009-0002		DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC AND NOBLE ENERGY, INC	NOT LESS THAN 1/8	692	570
								DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684					57				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					170				
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723					499				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	740					746				
16	FK053188	03-006B-0047-0000	Q100921000	P. C. ALLMAN AND ELLA ALLMAN, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	19				
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127				
				HOPE NATURAL GAS COMPANY	RESERVE GAS COMPANY	ASSIGNMENT	79	370				
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139				
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
						All or part of 03-7C-0001-0000-0000		DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
								CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	NOT LESS THAN 1/8	692					570				

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 Environmental Protection

1209S LEASE CHAIN

53	FK052960	03-7C-0001-0001-0000 03-7C-0001-0002-0000 03-7C-0001-0003-0000 03-7C-0001-0004-0000 03-7C-0002-0000-0000 and/or 03-7C-0003-0000-0000		Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Second Amendment to Memorandum of Farmout Agreement	723	499
				Dominion Transmission, Inc.	Dominion Energy Transmission, Inc.	Merger/Name Change	WVSOS	
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	717	1
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	170
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	734	558
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Mineral Deed	740	746
35	FK053196	03-007C-0032-0000 03-007C-0032-0001 03-007C-0032-0002 03-007C-0032-0003 03-007C-0032-0004	Q100277000	Jesse Leeson and Susie Leeson, His Wife	South Penn Oil Company	Not Less Than 1/8	44	278
				South Penn Oil Company	Hope Natural Gas Company	Assignment	85	127
				Hope Natural Gas Company	Reserve Gas Company	Assignment	79	370
				Reserve Gas Company	Hope Natural Gas Company	Confirmatory Deed	155	202
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	294	89
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	425	127
				Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Merger/Name Change	WVSOS	
				CNG Transmission Corporation	Dominion Transmission, Inc.	Merger/Name Change	58	362
				Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum Farmout Agreement	672	154
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	684	57
				Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	712	848
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	717	1
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	139
				Dominion Transmission, Inc.	Dominion Energy Transmission, Inc.	Merger/Name Change	WVSOS	
32	FK068039	03-007C-0001-0001 03-007C-0001-0002 03-007C-0001-0003 03-007C-0001-0004 03-007C-0002-0000 03-007C-0003-0000 p/o 03-007C-0001-0000	Q101065000	Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Amended and Restated Partial Assignment	723	527
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Second Amendment to Memorandum of Farmout Agreement	723	499
				J. L. Allman, Widower; T. E. Cayton, Jr. and Norma Jean Cayton, Each in his own right and as husband and wife	Hope Natural Gas Company	Not Less Than 1/8	252	474
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	294	89
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	425	127
				Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Merger/Name Change	WVSOS	
				CNG Transmission Corporation	Dominion Transmission, Inc.	Merger/Name Change	WVSOS	
				Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum Farmout Agreement	672	154
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	684	57
				Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	712	848
12	FK062782	03-007C-0006-0000 03-007C-0030-0005 03-007C-0033-0000 p/o 03-007C-0006-0003 p/o 03-007C-0006-0001	Q100694000	Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Amended and Restated Partial Assignment	723	527
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Second Amendment to Memorandum of Farmout Agreement	723	499
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	734	558
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment	736	220
				G. C. Smith, Widower	Hope Natural Gas Company	Not Less Than 1/8	215	512
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	294	89
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	425	127
				Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Merger/Name Change	WVSOS	
				CNG Transmission Corporation	Dominion Transmission, Inc.	Merger/Name Change	WVSOS	
				Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum Farmout Agreement	672	154
CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	684	57				
Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	712	848				
CNX Gas Company LLC	Noble Energy, Inc.	Assignment	717	1				
Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	722	139				
Dominion Transmission, Inc.	Dominion Energy Transmission, Inc.	Merger/Name Change	WVSOS					
Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Amended and Restated Partial Assignment	723	527				
Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Second Amendment to Memorandum of Farmout Agreement	723	499				

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 FEB 03 2020  
 WV Department of  
 Environmental Protection

39	FK053268	03-007C-0006-0002 p/o 03-007C-0006-0001 p/o 03-007C-0006-0003 p/o 03-007C-0030-0000 p/o 03-007C-0031-0000	Q100769000	CYRUS W. SMITH (A/K/A C. W. SMITH) AND D. A. SMITH, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	522
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	736	220				
18	FK053193	03-07C-0029-0000 03-07C-0030-0001 03-07C-0030-0002 03-07C-0030-0003 03-07C-0030-0004 03-07C-0030-0006 03-07C-0030-0007 03-07C-0030-0008 03-07C-0030-0009 03-07C-0030-0010 03-07C-0034-0000 03-07C-0037-0000 03-07C-0038-0000	Q101025000	D. CORDELIA BAILEY	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	38
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127
				HOPE NATURAL GAS COMPANY	RESERVE GAS COMPANY	ASSIGNMENT	79	370
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527				
23	FK061778	03-07C-0008-0000 p/o 03-07C-0026-0001 p/o 03-07C-0026-0000 03-07C-0027-0000 03-07C-0029-0001 03-07C-0039-0000 03-07C-0040-0000	Q100355000	C. BURKE MORRIS AND CHRISTINE MORRIS, HIS WIFE; MRS. DANIEL HEEFNER AND DANIEL HEEFNER, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	209	451
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	499
		p/o 03-0003-0001-0000 p/o 03-0003-0002-0000		MAGGIE COTTRILL, WIDOW	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	219	487
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57

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17	FK064209	p/o 03-0003-0006-0000 p/o 03-007C-0025-0000 p/o 03-007C-0049-0000	Q100975000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
24	FK062279	p/o 03-0003-0001-0000 p/o 03-0003-0001-0001 03-0003-0003-0000 03-0003-0004-0000 p/o 03-0003-0002-0000 p/o 03-0003-0006-0000 p/o 03-007C-0023-0000 03-007C-0024-0000 p/o 03-007C-0025-0000 03-007C-0050-0000 03-007C-0050-0001 p/o 03-007C-0051-0000	Q100357000	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				ALDERSON BROADDUS COLLEGE, INC.	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	212	305
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	736	220				
13	FK061793	3-7C-0020-0000 03-7C-0020-0001 03-7C-0020-0002 03-7C-0021-0000 03-7C-0022-0000 03-7C-0022-0001 03-7C-0022-0002	Q100786000	BERTHA H. NAY, WIDOW; AND ETHEL V. LAW, WIDOW	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	209	422
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
7	FK063153	03-007C-0011-0000 03-007C-0011-0001 03-007C-0012-0000 03-07C-0013-0000 p/o 03-007C-0014-0000 03-007C-0017-0000 03-007C-0018-0000 p/o 03-007C-0019	Q100397000 Q101047000	W. A. CHITTUM AND ZURA F. CHITTUM, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	217	419
				H. L. CHITTUM AND JEWEL E. CHITTUM, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	217	422
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
GLADYS HAYS, WIDOW; LOVANT HAYS AND RAMONA HAYS, HIS WIFE; AND DAVID HAYS AND ELNORA HAYS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	233	270				

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6	FK065819	04-07C-0001-0000 04-07C-0002-0000 04-07D-0001-0000 04-07D-0002-0000 04-07D-0003-0000 04-07D-0014-0000 04-07D-0015-0000 04-07D-0016-0000 04-07D-0017-0000 04-07D-0018-0000 04-07D-0019-0000 04-07D-0021-0000 04-07D-0060-0000 (formerly 04-07C-0004-0000) 04-07D-0061-0000 (formerly 04-07C-0003-0000)	Q100317000 Q100561000 Q100985000 Q100612000	JULIET P. BUTCHER AND WILLIAM E. BUTCHER, HER HUSBAND; AND ALTHEA J. RANDOLPH, WIDOW	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	233	458				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89				
				OLGA M. SMITH, WIDOW; RUTH MARY SMITH, SINGLE; AUBREY E. SMITH AND SHELBA J. SMITH, HIS WIFE; EARL H. SMITH AND GERALDINE SMITH, HIS WIFE, ILENE KEITH AND JOHN M. KEITH, HER HUSBAND; AND WILLARD F. SMITH AND FRED A. SMITH, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	300	116				
				MARY E. CLARK AND MASON D. CLARK, HER HUSBAND	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	341	264				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139				
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	736	220				
				27	FK072646	03-0001-0008-0000 03-0001-0009-0000 03-0001-0009-000 03-0001-0009-0002 03-0001-0050-0000 03-0001-0050-0001 03-007C-0052-0006 03-007C-0052-0007 03-007C-0052-0008 03-007C-0052-0013 03-007D-0045-0000 03-007D-0046-0000 03-007D-0047-0000 03-007D-0048-0000 03-007D-0049-0000 03-007D-0050-0000 03-007D-0051-0000 03-007D-0052-0000 03-007D-0053-0000 03-007D-0054-0000 03-007D-0055-0000 03-007D-0056-0000 03-007D-0057-0000 03-007D-0058-0000 03-007D-0059-0000 p/o 03-0001-0074-0000 p/o 03-007C-0053-0004	Q100574000 Q100739000 Q100573000	E. RAY BENNETT AND HAZEL L. BENNETT, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	285	248
								GEORGE JOSEPH GARTON AND JEANNE V. GARTON, HIS WIFE; CHARLES E. GARTON AND OPAL D. GARTON, HIS WIFE; MARY CATHERINE ROBERTS AND TERRELL N. ROBERTS, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	285	554
								HARRY V. CAMPBELL, HUGH A. CURRY, JOHN S. ALFRIEND AND THOMAS B. JACKSON, TRUSTEES OF THE EPISCOPAL CHURCH OF WEST VIRGINIA	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	299	418
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294					89				
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425					127				
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS									
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672					154				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684					57				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712					848				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	CORRECTIVE ASSIGNMENT	725					784				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					139				
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723					499				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723					527				

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**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

4704105705

January 14, 2020

Laura Adkins  
WV DEP  
Division of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

RE: Drilling Under Roads – McDonald 1211 S-8H  
Freeman District, Lewis County  
West Virginia

Dear Ms. Adkins:

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the McDonald 1211 well pad. As an authorized representative, I certify HG Energy II Appalachia, LLC, has the right to drill, stimulate, extract, produce and market the oil, gas or condensate for all leases through which the McDonald 1211 laterals will drill through including any and all roads crossed under as identified on the attached survey plat.

Should you have any questions or desire further information, please contact me at [dwhite@hgenergyllc.com](mailto:dwhite@hgenergyllc.com) or 304-420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

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STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION

Date of Notice Certification: 01/17/2020

API No. 47- -

Operator's Well No. McDonald 1211 S-8H

Well Pad Name: McDonald Well Pad

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: West Virginia	UTM NAD 83	Easting: 545442.4
County: Lewis		Northing: 4331780.1
District: Freemans Creek	Public Road Access: SR 1 / Hollick Run Road	
Quadrangle: West Milford	Generally used farm name: McDonald	
Watershed: Middle West Fork Creek		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>		<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
<p>RECEIVED Office of Oil and Gas FEB 03 2020 WV Department of Environmental Protection</p>		

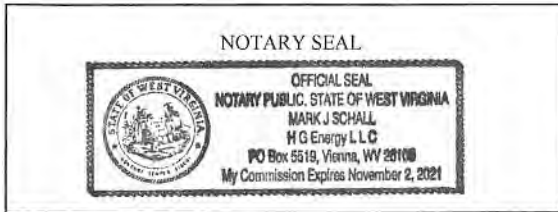
**Required Attachments:**

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

**Certification of Notice is hereby given:**

THEREFORE, I Diane White, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	<u>HG II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>Agent</u>	Facsimile:	<u>304-863-3172</u>
Telephone:	<u>304-420-1119</u>	Email:	<u>dwhite@hgenergyllc.com</u>



Subscribed and sworn before me this 17th day of January, 2020.

*Mark J Schall* Notary Public

My Commission Expires 11/2/2021

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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WW-6A  
(9-13)

API NO. 47- -  
OPERATOR WELL NO. McDonald 1211 S-8H  
Well Pad Name: McDonald 1211

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION**

**Notice Time Requirement:** notice shall be provided no later than the **filing date of permit application.**

**Date of Notice:** 01/14/20 **Date Permit Application Filed:** 01/16/20

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

**Delivery method pursuant to West Virginia Code § 22-6A-10(b)**

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s) \*Surface Owner not noticed

Name: HG Energy II Appalachia, LLC (Pad and Road)  
Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OPERATOR

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: Charles & Vanessa Brosius Melvin & Terri Woods  
Address: 1050 Hollick Run Road 54 Orchard Drive  
Jane Lew, WV 26378 Jane Lew, WV 26378

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: Dominion Energy Transmission - Attn: Ronald Waldren  
Address: 925 White Oaks Blvd  
Bridgeport, WV 26330

\*Please attach additional forms if necessary

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Office of Oil and Gas

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WV Department of  
Environmental Protection

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

**Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

**Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

**Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:**

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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Environmental Protection

WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. McDonald 1211 S-8H  
Well Pad Name: McDonald 1211

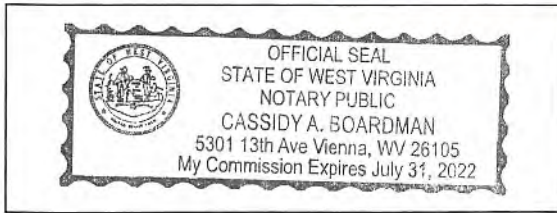
**Notice is hereby given by:**

Well Operator: HG Energy II Appalachia, LLC  
Telephone: 304-420-1119  
Email: dwhite@hgenergyllc.com *Diane White*

Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Facsimile: 304-863-2172

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).



Subscribed and sworn before me this 14th day of January, 2020.

Cassidy A. Boardman Notary Public

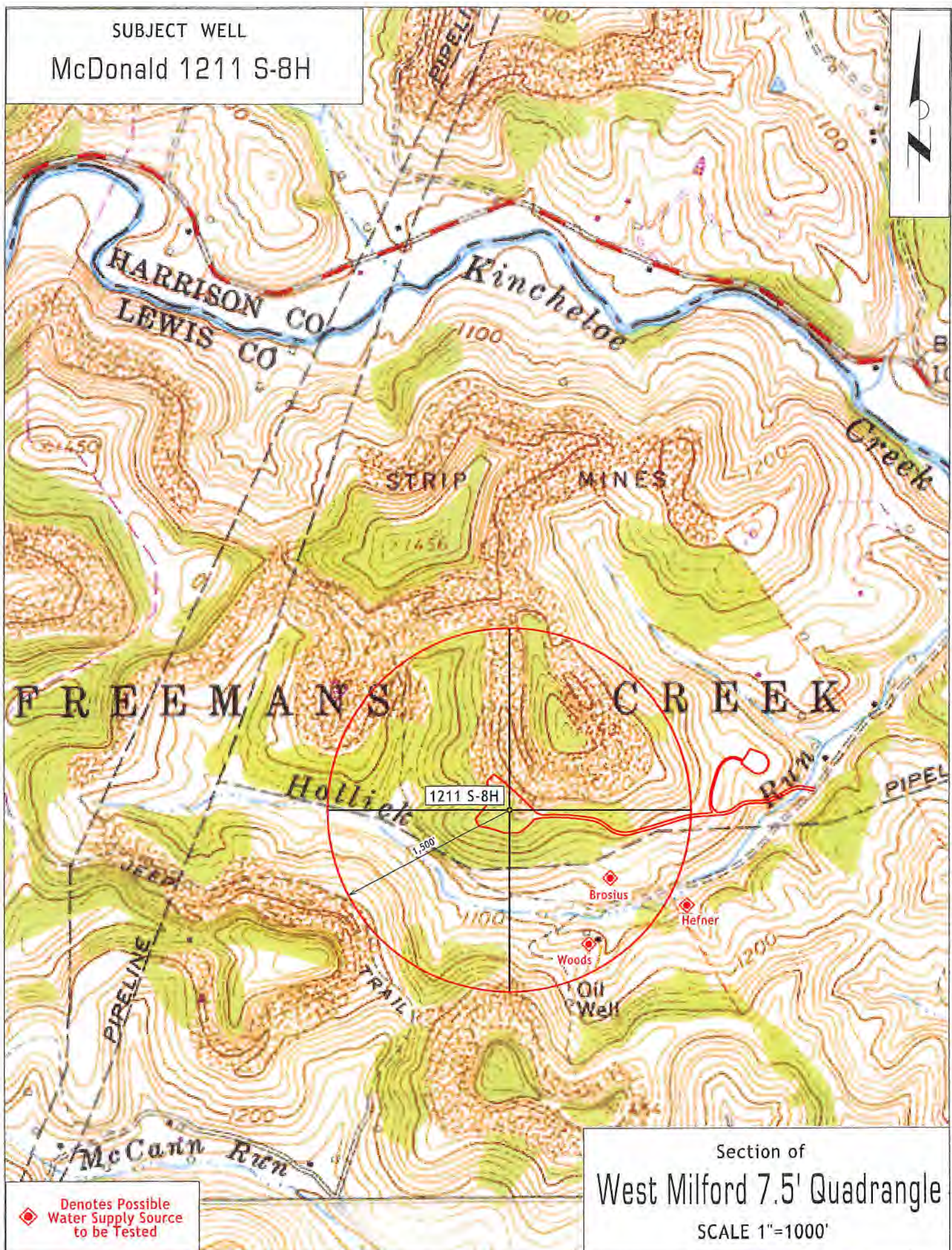
My Commission Expires 7/31/2022

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SUBJECT WELL  
McDonald 1211 S-8H



Section of  
West Milford 7.5' Quadrangle  
SCALE 1"=1000'

◆ Denotes Possible  
Water Supply Source  
to be Tested





**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 14, 2020

Dominion Energy Transmission, Inc.  
Attn: Ron Walden  
925 White Oaks Blvd  
Bridgeport, WV 26330

RE: McDonald 1211 S-8H Well Work Permit Application - Notification  
Grant District, Harrison County  
West Virginia

Dear Mr. Walden:

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

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WV Department of  
Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 14, 2020

Charles & Vanessa Brosius  
1050 Hollick Run Road  
Jane Lew, WV 26378

RE: McDonald 1211 S-8H Well Work Permit Application - Notification  
Grant District, Harrison County  
West Virginia

Dear Mr. and Mrs. Brosius:

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

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Environmental Protection



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

January 14, 2020

Dominion Energy Transmission, Inc.  
Attn: Ron Walden  
925 White Oaks Blvd  
Bridgeport, WV 26330

RE: McDonald 1211 S-8H Well Work Permit Application - Notification  
Grant District, Harrison County  
West Virginia

Dear Mr. Walden:

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane C. White

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Environmental Protection

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF ENTRY FOR PLAT SURVEY**

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

**Date of Notice:** 11/04/19      **Date of Planned Entry:** 11/11/19

**Delivery method pursuant to West Virginia Code § 22-6A-10a**

- PERSONAL SERVICE     
  REGISTERED MAIL     
  METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: HG Energy II Appalachia, LLC

Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: NA

Address: \_\_\_\_\_

MINERAL OWNER(s)

Name: Mineral Owners

Address: \_\_\_\_\_

\*please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.134014 &amp; 80.474219</u>
County: <u>Lewis</u>	Public Road Access: <u>SR 19/ Kincheloe Run / Hollick Run Road</u>
District: <u>Freeman's Creek</u>	Watershed: <u>Hollick Run</u>
Quadrangle: <u>West Millford 7.5'</u>	Generally used farm name: <u>McDonald</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: HG Energy II Appalachia, LLC

Telephone: 304-420-1119

Email: dwhite@hgenergyllc.com      Diane White

Address: 5260 Dupont Road  
Parkersburg, WV 26101

Facsimile: 304-863-3172

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WV Department of  
Environmental Protection

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

November 4, 2019

RE: McDonald 1211 S-8N  
Freeman's Creek District, Lewis County  
West Virginia

Dear

Enclosed is a copy of a Department of Environmental Protection "Notice of Entry For Plat Survey" form WW-6A3. This notice is provided to you as a royalty owner to advise you that HG Energy II Appalachia, LLC, is beginning the process of applying for permits to drill a well(s) where you are identified as an owner of minerals underlying such tract in the county tax records. A well work permit application will be filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because you are an owner of mineral rights on one or more of the underlying leases impacted by this well (s). Statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WVDEP at 304-926-0450, located at 601 57<sup>th</sup> Street, Charleston, WV. Copies of such documents or additional information related to horizontal drilling may also be obtained by visiting the WV DEP online.

No action on your part is required. If you have any questions or comments regarding this permit application, you may call this office at (304) 420-1119. Questions concerning lease issues may be directed to Mark Schall at 304-420-1115. Address inquiries should be directed to Bethanne Wilson at 304-370-3246.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

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WV Department of  
Environmental Protection

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(1-12)

McDonald 1211 S-8H

Page 1 Continued



Mineral Owners

Aloma Hughes  
6085 N. Sabal Palm Blvd., Apt. 201  
Tamarac, FL 33319

Angela Maxwell  
414 Lake Point Trce  
Canton, GA 30188

Barbara Starcher  
1230 Parkman Rd. NW  
Warren, OH 44485

Benjamin A. King  
100 Moriah Dr.  
Charleston, WV 25313

Bernard Bennett II  
56 Long Run Road  
Lost Creek, WV 26385

Bernard W. Bailey  
155 Andora St.  
Augustine, FL 32086

Beverly Morrison  
9680 Gillespie Run Road  
Harrisville, WV 26362

Bonnie L. Raines  
7658 Highway 42 W  
Pendleton, KY 40055

Brady Lee Pursley  
53 W Ingleside Dr.  
Coventry Twp, OH 44319

Brenda Alvis Linger  
59 Manor Lane  
Parkersburg, WV 26101

Brenda Handley  
33561 Bailey Run Rd  
Pomeroy, OH 45769

Brenda Kay Rich  
5042 Amma Rd  
Amma, WV 25005

Brenda Sue Romine  
P.O. Box 669  
Proctorville, OH 45669

Brent Rasmussen  
471 Sherrie Street  
Morgan, UT 84050

Buddy Lee Testerman  
13891 Dave Dr.  
Nokesville, VA 20181

Carla Coulter  
479 Parkview Dr.  
Girard, OH 44420

Carly Jo Fisher  
110 Sherriff Dr.  
Ripley, WV 25271

Carmen L. James  
5095 Northcrest Dr.  
Nashport, OH 43830

Carol A. Staats  
973 Cedar Grove Rd.  
Parkersburg, WV 26104

Carol Jean Mannen  
8 Loockerman Ave.  
Poughkeepsie, NY 12601

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Mineral Owners



Catherine S. Raines  
1060 Freddie Dr.  
Walnut Cove, NC 27052

Cecil "Glen" Starcher  
32 Starcher Lane  
Ripley, WV 25271

Cecil Stanley  
4261 Four Pole Rd.  
Huntington, WV 25701

Charles L Morrison  
3068 Belgrove Rd.  
Kenna, WV 25248

Cheryl A. Griffith  
8749 N. Auriga Way  
Tucson, AZ 85742

Clinton Burt  
3355 W 5000 N  
Brigham City, UT 84302

Connie Carpenter  
952 Valley Chapel Rd  
Weston, WV 26452

Cora Alice Raines  
827 Capital St.  
Spencer, WV 25276

David C. Allman  
415 Worthington Dr.  
Bridgeport, WV 26330

David G. Offield  
317 N Merrill St  
Breckenridge, TX 76424

David J. King  
c/o Benjamin King  
100 Moriah Dr  
Charleston, WV 25313

David W. Raines  
415 Drexel Ave.  
Decatur, GA 30030

Deborah J. Corry  
138 Nottingham Rd.  
Columbus, OH 43214

Debra Jo Heater  
441 Hollick Run Rd.  
Jane Lew, WV 26378

Debra Lynn Hornbeck  
3196 Kreighbaum Rd.  
Uniontown, OH 44685

Dianna Lynne Baker  
2822 Ripley Road  
Spencer, WV 25276

Donald Alvis  
1472 Colt Ridge Road  
Spencer, WV 25276

Donna Davis  
2128 Kincheloe Rd.  
Jane Lew, WV 26378

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Doris Jean Lowther  
3455 River Rock Dr  
Cuyahoga Falls, OH 44223

Edith Miller  
153 1/2 Summit Street  
Spencer, WV 25276

Elizabeth Francene Kirk  
986 Ashton PL  
Morgantown, WV 26508-6874

Ella Mae Tapar  
3627 W 128th St.  
Cleveland, OH 44111

Ester Brown  
402 Hobart Ave.  
Findley, OH 45840

Evalyn Emogene Haid  
411 Holley St.  
St. Albans, WV 25177

Frances Allman  
1915 48th St. NW  
Canton, OH 44709

Frances Lane  
153 1/2 Summit Street  
Spencer, WV 25276

Frances Linda Parsons  
137 Llewellyn Ave  
Westerville, OH 43701

Frank Glen Riley  
c/o Tina M. Riley, POA  
221 2nd Street  
Spencer, WV 25276

George Franklin Raines  
257 Grimes Golden Rd.  
Linden, VA 22642

Gordon Rasmussen  
3111 Bell Air Drive Unit 24F  
Las Vegas, NV 89109

Greg Coulter  
479 Parkview Dr.  
Girard, OH 44420

Harold Russell Rice  
1986 Berger Ave.  
Stow, OH 44224

Harvey Lawrence  
655 Hazen Ave. Apt 4  
Ravenna, OH 44266

Hayward Allman  
4444 Old Mill Rd.  
Jane Lew, WV 26378

Helen M. Burton  
P.O. Box 8179  
Nutter Fort, WV 26301

Howard Burton Roberts, II  
2617 SW 56th Ave  
Gainesville, FL 32608

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Ilene Hatch  
738 W Sherri Dr.  
Gilbert, AZ 85233

Ilene Hatch  
738 W Sherri Dr.  
Gilbert, AZ 85233

Imogene Gandee  
P. O. Box 1584  
Craigsville, WV 26205

Ina "Ruth" Hughes  
2031 Kincheloe Rd.  
Jane Lew, WV 26378

Isabelle Marie Grisak  
3222 Green Oak Drive  
Commerce Township, MI 48390

Iwana Lee Wagner  
576 Sherwood Dr.  
Mansfield, OH 44904

James F. Davis  
Dower Interest of Evert W. Davis  
230 Woodmire Drive  
Milton, WV 25541-1177

James R. Allman  
1187 McWhorter Rd.  
Jane Lew, WV 26378

James Riley  
P. O. Box 376  
Spencer, WV 25276

Janet Sue Whited  
357 Lincoln Dr  
Mineral Wells, WV 26150

Jason Alvis  
14 Forest View Lane  
Spencer, WV 25276

Jeannie McCormick  
1652 Lost Creek Romines Mill Road  
Lost Creek, WV 26387

Jeffrey Allman  
1202 McWhorter Rd.  
Jane Lew, WV 26378

Jennifer Roach  
252 Folsom St. NW  
Warren, OH 44483

Jesse Byron Morrison  
116 Water St.  
Spencer, WV 25276

Jewell "Jason" D. Rider III  
116 S 4th Ave Apt 4  
Sandpoint, ID 83864

Jimmie Lee Starcher  
106 Lattimer St.  
Reedy, WV 25720

Joan E. Barnett  
540 Moore Rd  
Jasper, GA 30143

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Joan Shoemaker  
3712 Shady Land  
Sandusky, OH 44870

John Douglas Morrison  
1140 Limestone Road  
Charleston, WV 25312

John E. Richardson  
664 Speed Rd.  
Spencer, WV 25276

John Paul Shock, Jr.  
9 Chardeaux Ct.  
Little Rock, AR 72212-4420

Josephine Ann Snead  
767 Copperhead Rd  
Hurdle Mills, SC 27540-8812

Josh Sampson  
3472 West 33rd Ave.  
Denver, CO 80211

JP Morgan, Trustee S. Austin Smith  
Trust Agreement dated Nov 21, 1958  
PO Box 659  
Wichita Falls, TX 76307-0659

Juanita Riley  
5577 Fairview Rd.  
Batesburg, SC 29006

Judith K. Harper  
37 Fort Argyle Ct.  
Savannah, GA 31419

Julianna Rimo  
60 Parkview Avenue  
Lackawanna, NY 14218

June A. Bell  
PO Box 202  
Oak Hill, WV 25901

Kathleen Hamilton  
4209 Perry St.  
Denver, CO 80212

Kathy Bennett  
1248 Long Run Road  
Lost Creek, WV 26388

Kathy C. Frishe  
512 W Hullum St.  
Breckenridge, TX 76424

Kelly J. Rock  
6762 N Elyria Rd.  
West Salem, OH 44287

Kimberly Carson  
271 Quail Creek Dr.  
Newark, OH 43055

Kimberly Dawn Zaner  
412 Downing Drive  
Chesapeake, VA 23322

Koelln Family Trust  
C/O Rodger Koelln  
by POA Carol Lynne Koelln Lewis  
802 Reuter Drive  
Hastings, MN 55033

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Larry Frishe  
316 Frishe Drive  
Jane Lew, WV 26378

Larry G. Romine  
1501 David Ave.  
Ironton, OH 45368

Larry K. Allman  
329 Ralph Miller Rd.  
Lexington, NC 27295

Larry Richardson  
#3 Lincoln Shore Star Resort  
Lincoln City, OR 97367

Larry Whited  
2674 South Calhoun Hwy.  
Grantsville, WV 26147

Linda Rucker  
1276 Sherwood Downs Rd East  
Newark, OH 43055

Linda Sanders  
6318 N Camino Los Mochis  
Tucson, AZ 85718

Lisa Kaye Raines  
113 Meadows Mobile Home Park  
Parkersburg, WV 26104

Lisa L. Bowden  
420 Egan St.  
Orlando, FL 32822

Mabel Henderson  
304 Pullman Dr.  
Pennsboro, WV 26415

Mable Taylor  
P. O. Box 293  
Elizabeth, WV 26143

Marcia Grether  
9552 Adler St.  
Newport Ritchie, FL 34654

Marcia J. Howard  
949 Caterpillar Lane  
Cantonment, FL 32533

Marianne Golby  
3375 County Rd 528  
Sumterville, FL 33585

Marie Hayden  
814 Robey Rd.  
Huntington, WV 25705

Marion L. Utt  
70 Kevin Lane  
Fairmont, WV 26554

Marjorie Neely  
375 Neely Hollow Rd.  
Jane Lew, WV 26378

Marsha Jarvis  
831 Peniel Rd  
Reedy, WV 25270



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Martha Ann Burkhammer ✓  
661 Spring Hills Drive  
Zionsville, IN 46071

Martha J. Starcher ✓  
200 Front Street  
Spencer, WV 25276

Mary J. Bailey ✓  
1829 Oka Road ✓  
Chloe, WV 25235

Mary J. Johnson ✓  
1403 Michigan Ave. ✓  
Gladstone, MI 49837

Mathew D. Raines ✓  
P.O. Box 974 ✓  
Van Alstyne, TX 75495

Matthew Alvis ✓  
1945 Toms Run ✓  
Spencer, WV 25276

Michael A. McAtee ✓  
1 Grannies Creek ✓  
Newton, WV 25266

Michael A. Nutter ✓  
Route 3 Box 808 ✓  
Lost Creek, WV 26385

Michael L. Richardson ✓  
2359 Ripley Rd. ✓  
Spencer, WV 25276

Michael Matthews ✓  
1365 Dodge St. NW ✓  
Warren, OH 44483

Michael Ross ✓  
Po Box 219 ✓  
Coalton, WV 26257

Michael W. Riley ✓  
29847 Morning Mist Dr. ✓  
Wesley Chapel, FL 33543

Michael Wayne King ✓  
4079 Garden Circle ✓  
Acworth, GA 30101

Mike Ross, Inc. ✓  
Po Box 219 ✓  
Coalton, WV 26257

Minnie Mae Schoolcraft ✓  
1115 Coal City Rd. ✓  
Beaver, WV 25813

Nancy L. Hughes ✓  
409 Quail Run Cir. ✓  
Fountain Inn, SC 29644

Naomi Joyce Nichols ✓  
PO Box 115 ✓  
Elkview, WV 25071

Nelson D. Raines ✓  
7300 Old Mill Run ✓  
Ft. Worth, TX 76133

Opie Huntsman ✓  
306 Indiana Ave. Apt 2 ✓  
Sebring, OH 44672

Orda H. Raines ✓  
303 Cherrydale Ave. ✓  
Front Royal, VA 22642

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Mineral Owners

Pamela Ginther  
118 Firestone Rd.  
Wooster, OH 44691

Patricia Ann Hughes  
5116 Indiana St.  
South Charleston, WV 25309

Patsy Nichols  
1737 Vandale Fork Rd  
Spencer, WV 25276

Paul Allman  
4000 E. Fletcher Ave.  
Tampa, FL 33613

Paul C. Allman  
1101 Possum Trot Rd.  
Myrtle Beach, SC 29582

Paul Fields  
4745 NW Welch Rd.  
Lawton, OK 73507

Paul Joseph Raines  
3463 Huffine Farm Rd.  
Gibsonville, NC 27249

Paul Starcher  
5326 Bentbrook Road  
Charleston, WV 25313

Peggy Jo Cunningham  
255 Mitchell Creek Ridge  
Wetumpka, AL 36093

Peggy Reed  
100 Granite Dr  
Eleanor, WV 25070

Peter A. Jordon  
17225 Old Logging Road  
Hersey, MI 49639

Prestin Checketts  
4835 N 3600th W  
Brigham City, UT 84302

Ralph E. Pursley  
4491 Aylesworth Dr  
Brunswick, OH 44212

Randel G. Riley  
14219 Triskett Rd. 302D  
Cleveland, OH 44111

Rebecca "Becky" Lynn Taylor  
321 Valley Chapel Rd.  
Weston, WV 26452

Rebecca Ann VanHorn  
P. O. Box 555  
Lost Creek, WV 26386

Rex Checketts  
3041 S 200 E  
Bountiful, UT 84010

Rhonda Koutsobaris  
Route 3 Box 833  
Lost Creek, WV 26385

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Mineral Owners

Rhonda R. Shaw  
412 East Hill St Apt 20  
Graham, NC 27253

Richard Alan Morrison  
812 55th St.  
Vienna, WV 26105

Richard L. Bailey  
54 Mallie Street  
Reedy, WV 25270

Rita Ernest  
10817 Golden Maple Place  
Louisville, KY 40223

Robert J. Morgan  
P. O. Box 218  
Lineville, AL 36266

Robert Raines  
1032 Rivergrass Lane  
Okatie, SC 29909

Robert Starcher  
601 Market S. Market Manor Apt. 29  
Spencer, WV 25276

Robert Startcher  
1731 Potts Lane  
Zanesville, OH 43701

Robin G. King  
109 Beaver St  
Sylvania, GA 30467

Robin S. Bailey  
3104 Spider Ridge Rd  
Parkersburg, WV 26104

Rodger Jones  
203 Front St.  
Racine, OH 45771

Roger Allman  
144 Porlock Way  
Raeford, NC 28376

Roger Glen Whited  
621 Dutch Ridge Rd.  
Parkersburg, WV 26101

Ronald G. Fisher  
5429 Donnefield Dr.  
Charlotte, NC 28227

Ronald Jones  
50556 Tornado Rd.  
Racine, OH 45771

Roy D. Green Jr.  
3711 Princeton Ave.  
Nashville, TN 37221

Roy Duane Westfall  
3301 South Elson Ave.  
Tucson, AZ 85730

Ruby Morrison  
POA Deborah Weidauer Kellough  
8040 State Rd. 772  
Chillicothe, OH 45601



Page 1 Continued

Mineral Owners



Ruth Blatt  
2929 Fannin Dr  
Huntington, WV 25704

Ruth Casto  
212 4th Street  
Spencer, WV 25276

Sandee D. Barberio  
714 Mulberry Ave.  
Clarksburg, WV 26301

Shannon Waldron  
326 Winter Berry Dr.  
Edgewood, MD 21040

Sharon Ann Stears  
710 Seib Drive  
O' Fallon, MO 63366

Sharon Coleman  
6130 N Highway 38  
Brigham City, UT 84302

Sharon Stears  
710 Seib Dr  
O Fallon, MO 63366

Shauna R. Fesler  
235 Lee Street  
Weston, WV 26452

Sherry Michael  
Route 2 Box 278  
Jane Lew, WV 26378

Shirley Sue Mills  
526 Cynthia Lane #51  
Tallmadge, OH 44278

Stacey K. Farmer  
5421 Clay Rd  
Spencer, WV 25276

Steve Starcher  
120 Prospect Street  
Spencer, WV 25276

Susan Morrison Parsons  
2068 Fishers Branch Rd  
Charleston, WV 25312

Terry A. Raines  
3365 Williamstown Pike  
Williamstown, WV 26187

Terry L. Jenkins  
P.O. Box 1584  
Craigsville, WV 26205

Terry L. King  
708 Hillsdale Dr  
Charleston, WV 25302

Terry S. Lydamore  
69 Moss Rd.  
Lewis, NY 12950

Tracy Harris  
52 Channel St.  
Newark, OH 43055

Valli Green Baldwin  
5229 Beech Ridge Dr.  
Nashville, TN 37221

Vickie Bolyard  
98 Roy Road  
Thornton, WV 26440



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Mineral Owners

Vickie D. Offield  
PO BOX 681  
Jane Lew, WV 26378

Virginia Paxton  
250 Harmony Rd.  
Gandeeville, WV 25243

Virginia Spencer  
608 Marcellus St. Apt 1  
Reidsville, NC 27320

Waco Oil and Gas Inc  
PO Box 880  
Glennville, WV 26351

Walter "Cline" Estep  
1024 Guckert St.  
Newark, OH 43055

Wanda Wood  
50220 Waid Sayre Rd.  
Racine, OH 45771

Warren Testerman  
8175A Edgerock Way  
Laurel, MD 20724

Wendy Parrett  
1476 Pleasant Valley Dr.  
Newark, OH 43055

William Bennett  
972 Stone Coal Road  
Lost Creek, WV 26389

William Joseph Chini  
861 S Wonnell Road  
Port Clinton, OH 43452

Yvonne M. Stanley  
26290 Frank Rd.  
Elberta, AL 36530

Zan Nix  
HC 33 Box 33991  
Ely, NV 89301



HG Energy II Appalachia LLC will *not*  
be noticed via certified mail



**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

**Notice Time Requirement:** Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

**Date of Notice:** 01/14/2020      **Date Permit Application Filed:** 01/16/2020

**Delivery method pursuant to West Virginia Code § 22-6A-16(b)**

HAND DELIVERY       CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

**Notice is hereby provided to the SURFACE OWNER(s):** \* Surface Owner, HGE, not noticed

Name: HG Energy II Appalachia, LLC  
Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia      UTM NAD 83      Easting: 545442.4  
County: Lewis      Northing: 4331780.1  
District: Freemans Creek      Public Road Access: SR 1 / Hollick Run Rd  
Quadrangle: West Milford WV 7.5'      Generally used farm name: McDonald  
Watershed: Middle West Fork Creek

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: HG Energy II Appalachia, LLC  
Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone: 304-420-1119  
Email: dwhite@hgenergyllc.com      *Diane White*  
Facsimile: 304-863-3172

Authorized Representative: Diane White  
Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone: 304-420-1119  
Email: dwhite@hgenergyllc.com  
Facsimile: 304-863-3172

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF PLANNED OPERATION**

**Notice Time Requirement:** notice shall be provided no later than the **filing date of permit application.**

**Date of Notice:** 01/15/2020      **Date Permit Application Filed:** 01/16/2020

**Delivery method pursuant to West Virginia Code § 22-6A-16(c)**

- CERTIFIED MAIL                                       HAND  
RETURN RECEIPT REQUESTED                                      DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

**Notice is hereby provided to the SURFACE OWNER(s)** \* *Surface Owner, HGE, not noticed.*  
(at the address listed in the records of the sheriff at the time of notice):

Name: HG Energy II Appalachia LLC  
Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>545442.4</u>
County: <u>Lewis</u>		Northing: <u>4331780.1</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>SR 1 / Hollick Run Road</u>	
Quadrangle: <u>West Milford WV 7.5'</u>	Generally used farm name: <u>McDonald</u>	
Watershed: <u>Middle West Fork Creek</u>		

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: HG Energy II Appalachia, LLC  
Telephone: 304-420-1119  
Email: dwhite@hgenergyllc.com *Diane White*

Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Facsimile: 304-863-3172

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Byrd E. White, III  
Secretary of Transportation/  
Commissioner of Highways

January 28, 2020

Jimmy Wriston, P. E.  
Deputy Secretary/  
Deputy Commissioner

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the McDonald 1211 Pad, Lewis County  
1211 S-8H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #07-2019-0255 which has been issued to HG Energy, LLC for access to the State Road for a well site located off Lewis County Route 1/1 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

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Environmental Protection

Very Truly Yours,

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Diane C. White  
HG Energy, LLC  
CH, OM, D-7  
File

**List of Frac Additives by Chemical Name and CAS #**

**McDonald 1211 Well Pad (N-1H, N-3H, N-5H, S-7H, S-8H, S-9H)**

Chemical Name	CAS #	Multiple CAS #'s
Pro Shale Slik 405	Mixture	68551-12-2 7647-14-5 12125-02-9 64742-47-8
Pro Hib II	Mixture	68412-54-4 68607-28-3 107-21-1 111-76-2 67-56-1 107-19-7
Silica Sand and Ground Sand	Mixture	14808-60-7 1344-28-1 1309-37-1 13463-67-7
Hydrochloric Acid 22 DEG BE	7647-01-0	
PROGEL - 4.5	64742-96-7	
BIO CLEAR 2000	Mixture	25322-68-3 10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1 107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0 68439-45-2 2687-96-9
PROGEL - 4	9000-30-0	

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# 1211 WELL PAD HG ENERGY II APPALACHIA, LLC PERMIT PLANS

FREEMANS CREEK DISTRICT, LEWIS COUNTY, WEST VIRGINIA

**PROJECT DEVELOPER/OWNER**  
HG ENERGY II APPALACHIA, LLC  
SUNBELT ENERGY PARTNERSHIP, L.P.  
1611 SOUTH KENTUCKY AVENUE  
LEWISBURG, WV 26043

**PROJECT**  
1211 WELL PAD

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**  
1000 MARKET PLACE, SUITE 200  
LEWISBURG, WV 26043  
PH: 304.333.8100  
CONTACT: THOMAS ADAMS, P.E.

**PROJECT NO.**  
1211

**DISTRICT DESIGN**  
PROJECT NO. 0001 (REVISED)  
CONTACT: ERIN BODDIE, P.E.

**DATE**  
08/14/2019

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP)**  
100 UNIVERSITY CENTER  
CHARLESTON, WV 25309  
CONTACT: THOMAS ADAMS, P.E.

**SHEET INDEX**

1. COVER SHEET	13. WEST VIRGINIA ROAD SECTIONS
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5. ETE LAYOUT	17. DETAILS
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8. WELL PAD AND ABSTRACT SECTIONS	20. REGULATION PLAN
9. ACCESS ROAD SECTIONS	
10. ACCESS ROAD DET. PLANS	
11. ACCESS ROAD SECTIONS	

- GENERAL REQUIREMENTS**
1. PRIOR TO COMMENCEMENT OF ANY EARTH DISTURBANCE ACTIVITY, THE APPLICANT SHALL OBTAIN A PERMIT FROM THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP) AND SHALL COMPLY WITH ALL APPLICABLE REGULATIONS AND ORDINANCES. THE APPLICANT SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND SHALL PROVIDE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES AND SHALL PROVIDE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES AND SHALL PROVIDE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.
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**1211 WELL PAD COORDINATES (UTM ZONE 18Q)**

WELL #	NORTHING	EASTING	SOUTHING	WESTING
W-01	5421387000	1768293645	W01133400	W008374321
W-02	5421386992	1768293687	W01133407	W008374283
W-03	5421386984	1768293729	W01133414	W008374245
W-04	5421386976	1768293771	W01133421	W008374207
W-05	5421386968	1768293813	W01133428	W008373829
W-06	5421386960	1768293855	W01133435	W008373791
W-07	5421386952	1768293897	W01133442	W008373753
W-08	5421386944	1768293939	W01133449	W008373715
W-09	5421386936	1768293981	W01133456	W008373677
W-10	5421386928	1768293923	W01133463	W008373639
W-11	5421386920	1768293865	W01133470	W008373601



**LIMITS OF DISTURBANCE PARCEL BREAKUPS - 1211 WELL PAD**

OWNER	TR. PARCEL	DEED #	TOTAL ACRES	TYPE OF DISTURBANCE	ACREAGE
WV ENERGY II APPALACHIA, LLC	18-10	110-077	38.5	WELL PAD	3.27
				WELL PAD	0.77
				WELL PAD	1.11
				WELL PAD	2.18
				WELL PAD	22.99
				WELL PAD	29.94
				WELL PAD	14.94

**GRAVING VOLUMES**

DESCRIPTION	DEPTH (FT)	AREA (SQ FT)	VOLUME (CY)
WELL ACCESS ROAD	18-24	10,747	193.25
WELL PAD ACCESS	18-24	2,741	49.34
WELL PAD	18-24	17,710	318.81
WELL PAD	18-24	7,487	134.76
WELL PAD	18-24	3,228	58.10
TOTAL		32,913	594.26
TOPSOIL (AT 10% WITH 20% SWELL)		14,386 (CY)	13,855 (CY)
TOTAL GRADING		16,229	31,979



**LOCAL EMERGENCY SERVICES**

SERVICE	NAME	TELEPHONE NO.
FIRE/AMBULANCE	UNITED HEALTH CARE	800.538.1222
FIRE DEPARTMENT	WV	811
POWDER DEPARTMENT	WV	811
POWDER DEPARTMENT	WEST VIRGINIA POLICE DEPARTMENT	304.333.5577

**APPROVED WVDEP OOG**  
8/21/2019

**FLOOD PLAIN CONDITIONS**

CONDITION	YES/NO
IS THE CONSTRUCTION ACTIVITY TAKE PLACE IN FLOOD PLAIN?	NO
IS THE CONSTRUCTION ACTIVITY TAKE PLACE IN FLOOD PLAIN?	NO
IS THE CONSTRUCTION ACTIVITY TAKE PLACE IN FLOOD PLAIN?	NO
IS THE CONSTRUCTION ACTIVITY TAKE PLACE IN FLOOD PLAIN?	NO
IS THE CONSTRUCTION ACTIVITY TAKE PLACE IN FLOOD PLAIN?	NO

**WELL TEST PROCEDURES CHECKLIST**

ITEM	YES/NO
AT LEAST ONE WELL FROM PAD AND LOG INCLUDING ANY LOG CONTROLS REFERRED TO IN PERMIT PLAN. SHALL BE LOGGED AND REPORTED TO WVDEP.	NO
AT LEAST ONE WELL FROM PAD AND LOG INCLUDING ANY LOG CONTROLS REFERRED TO IN PERMIT PLAN. SHALL BE LOGGED AND REPORTED TO WVDEP.	NO
AT LEAST ONE WELL FROM PAD AND LOG INCLUDING ANY LOG CONTROLS REFERRED TO IN PERMIT PLAN. SHALL BE LOGGED AND REPORTED TO WVDEP.	NO
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**PLAN REPRODUCIBILITY WARNING**  
THIS PLAN HAS BEEN CREATED BY A COMPUTER PROGRAM. THE PLAN HAS BEEN CHECKED FOR REPRODUCIBILITY. THE PLAN HAS BEEN CHECKED FOR REPRODUCIBILITY. THE PLAN HAS BEEN CHECKED FOR REPRODUCIBILITY.

**West Virginia CALL BEFORE YOU DIG!**

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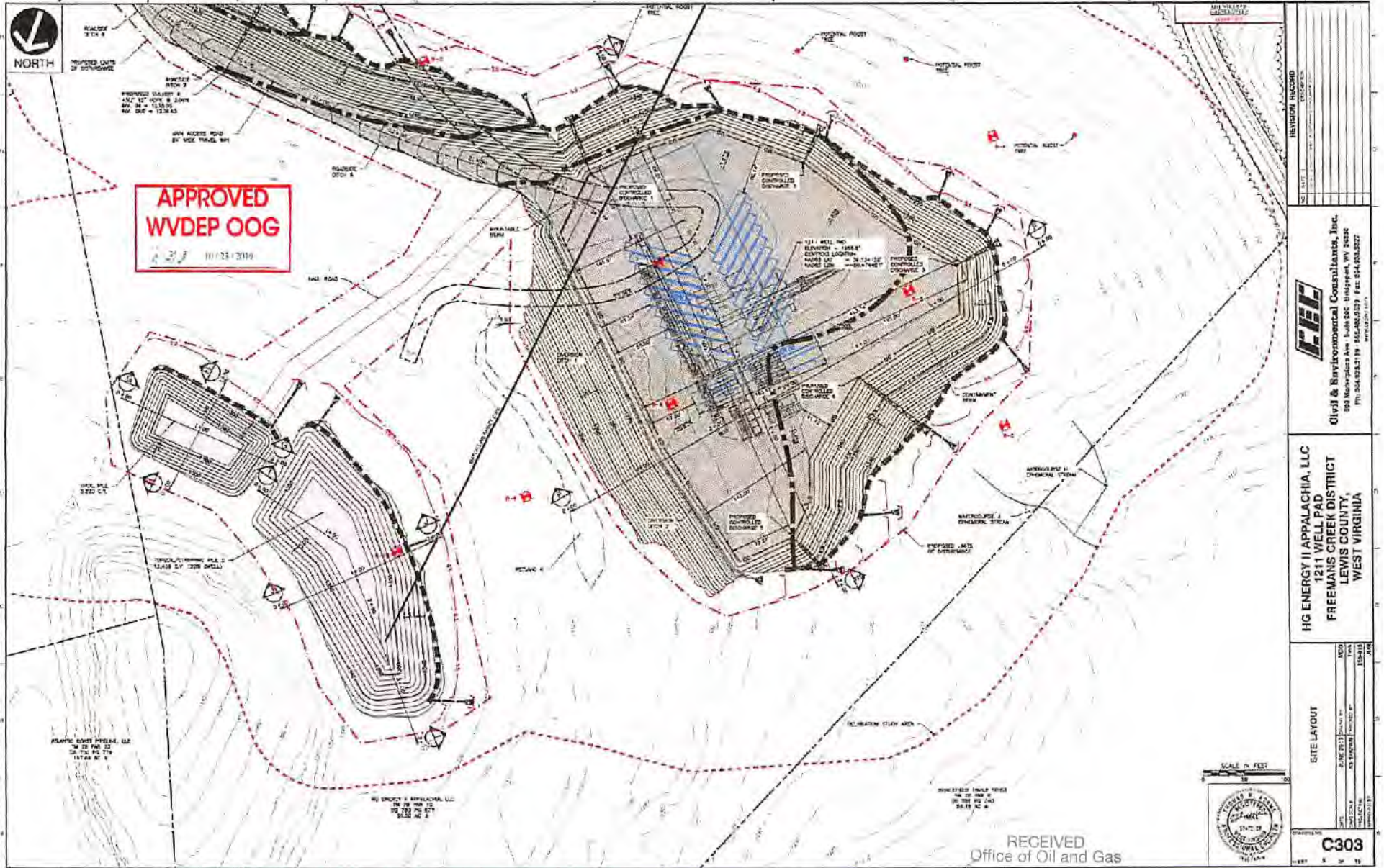
WV Department of Environmental Protection

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**  
100 MARKET PLACE, SUITE 200  
LEWISBURG, WV 26043  
PH: 304.333.8100  
CONTACT: THOMAS ADAMS, P.E.

**HG ENERGY II APPALACHIA, LLC**  
1211 WELL PAD  
FREEMANS CREEK DISTRICT  
LEWIS COUNTY,  
WEST VIRGINIA

**COVER SHEET**

**C000**



REVISION RECORD

NO.	DATE	DESCRIPTION
1	01/21/2020	INITIAL DESIGN

**FEC**  
 Civil & Environmental Consultants, Inc.  
 800 New-Jones Ave., Suite 250 Charleston, WV 25302  
 PH: 304.263.1719 FAX: 304.263.2327  
 www.fec.com

WG ENERGY II APPALACHIA, LLC  
 1211 WELL PAD  
 FREEMANS CREEK DISTRICT  
 LEWIS COUNTY,  
 WEST VIRGINIA

SITE LAYOUT

NO.	DATE	DESCRIPTION
1	01/21/2020	INITIAL DESIGN

SCALE IN FEET  
 1" = 20'

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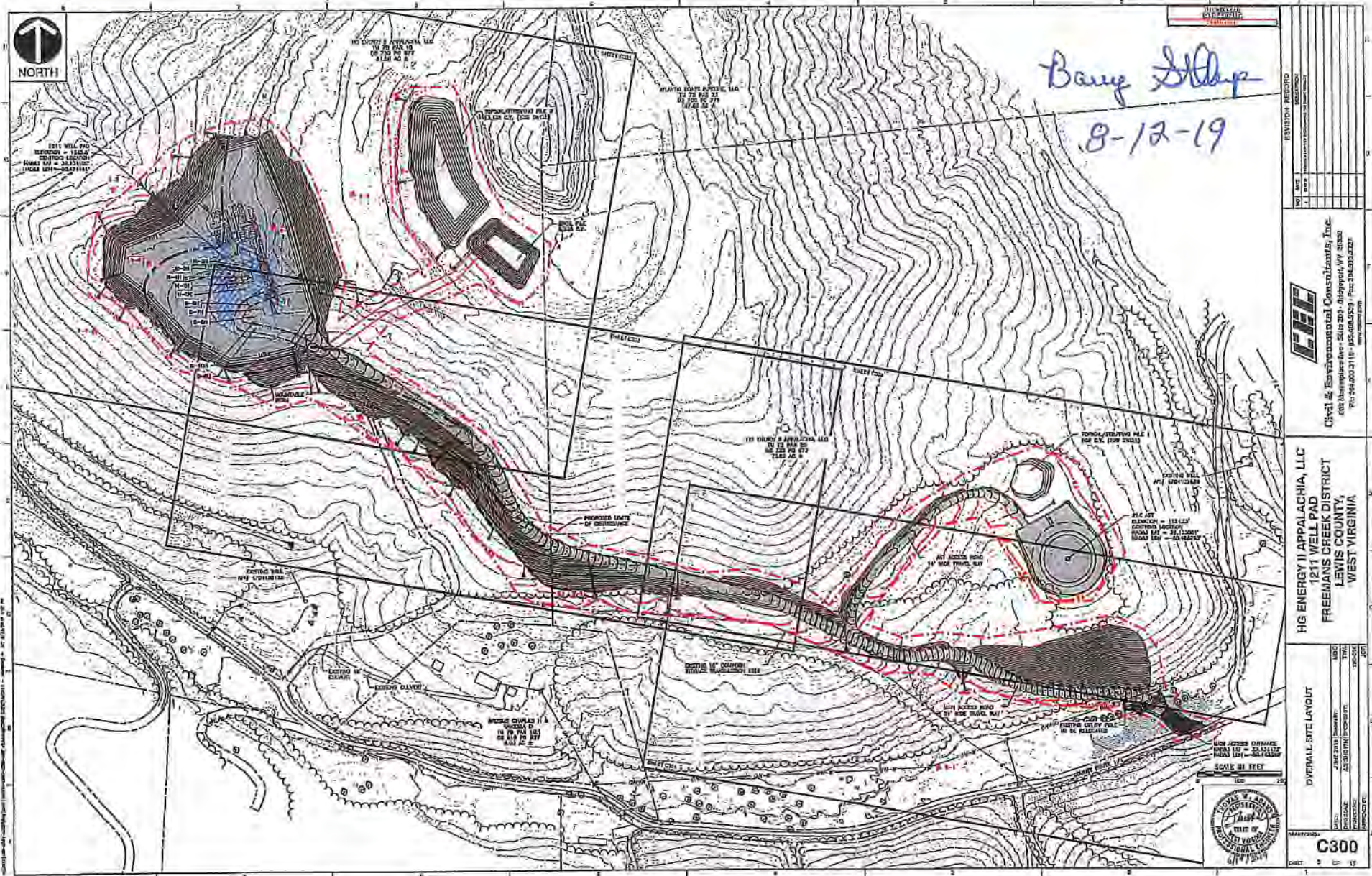
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**CEE**  
 Civil & Environmental Consultants, Inc.  
 604 Shawnee Ave. - Suite 200 - Highpoint, WV 26030  
 204-241-8000 • 216-225-0888 • Fax: 204-241-8287  
 www.ceecorp.com

**HG ENERGY II APPALACHIA, LLC**  
**1211 WELL PAD**  
**FREEMAN'S CREEK DISTRICT**  
**LEWIS COUNTY,**  
**WEST VIRGINIA**

OVERALL SITE LAYOUT	
DATE	NOV 2019
PROJECT	1211 WELL PAD
SCALE	AS SHOWN
PROJECT NO.	1211
DATE	8/12/19

LOW ACCESS DISTANCE  
 ROAD 121 - 23,551.07'  
 ROAD 121 - 23,551.07'  
 ROAD 121 - 23,551.07'  
 SCALE 3/16" = 1'



**C300**